UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
Case IPR2024-000146, 2024-00043,
2024-00044, 2024-00045, 2024-00046
U.S. Patent No. 10,951,680

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AYLO FREESITES LTD and fuboTV MEDIA INC.,
Petitioner,
V.
DISH TECHNOLOGIES L.L.C.,
Patent Owner.

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November 12, 2024

Deposition of Henry H. Houh

Stenographically Reported By:
Mark Richman, CSR, CCR, RPR, CM
Job No. 2024-962817

November 12, 2024

9:00 a.m.

Deposition of HENRY H. HOUH, held at the offices of Venable LLP, 151 West 42nd Street, New York, NY 10036, before Mark Richman, Certified Shorthand Reporter, Certified Court Reporter, Registered Professional Reporter, and a Notary Public within and for the State of New York.

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09:16:17 ELIOT D. WILLIAMS, ESQ. (REMOTE)
09:16:19 G. HOPKINS GUY, III, ESQ. (REMOTE)
09:16:20 JAMIE R. LYNN, ESQ. (REMOTE)

ALSO PRESENT:
JOSEPH EDELL, Esq., Dish (Remote)

H. HOUGH - 11.12.24

HENRY HOUH, called as a witness, having been first duly sworn by the Notary Public (Mark Richman), was examined and testified as follows:

EXAMINATION BY MR. WILSON:

Q. Good morning, Dr. Houh.

A. Good morning.

Q. Could you please state your name for the record.

A. My name is Henry Houh, that's spelled H-O-U-H.

MR. SHENG: Andrew, I'm sorry to interrupt. Should we make

09:00 appearances?

MR. WILSON: Fine. On the record.

Andrew Wilson with the law firm Baker Botts LLP for patent owner

09:00 Dish.

MR. SHENG: Philip Sheng with the law firm Venable LLP. I'm joined with my colleague Mr. Ian Paquette, also with Venable. We represent Dr.

09:00 Houh and the Aylo Freesites,

H. HOUGH - 11.12.24

Petitioner.

Q. Dr. Houh, you're aware that this deposition is being conducted in regard to a supplemental or a series of supplemental declarations you submitted in related proceedings; is that correct?

A. Yes.

Q. And that relates to cases IPR2024-00043, IPR2024-00044, IPR2024-00045, IPR2024-00046 and IPR2024-00146, right?

A. I don't know all the numbers by heart, so the 40 series sounds about right. I don't remember the other number.

Q. You don't have reasons to dispute that the numbers I read are the correct cases for which you submitted declarations, correct?

A. I mean I don't think so, but again, I don't have them memorized that way.

Q. Well you were previously deposed in these cases, correct?

H. HOUGH - 11.12.24

A. I believe so, yes.

Q. And that was with regard to an initial declaration that you submitted?

09:01 A. Or set of declarations I think, perhaps.

Q. Sorry, yes. Initial declaration in each case, correct?

A. That sounds right.

09:01 Q. You also submitted a declaration in several other IPR cases concerning related patents; is that correct?

MR. SHENG: Objection, form.

A. I'm not sure.

09:02 Q. You don't recall submitting declarations in other related matters, in other related IPR matters?

MR. SHENG: Objection, form.

A. I don't know what you're

09:02 referring to by related matters.

Q. Well do you recall submitting a declaration in IPR2024-00047?

A. Okay. Yes, perhaps. I don't know them by memory, by number, but

09:02 perhaps.

H. HOUGH - 11.12.24

Q. And I'm referring to a series of cases where institution of IPR was denied. Do you recall those cases?

09:02 A. That sounds familiar.

Q. And those cases also involved the reference that we'll call Ogdon; is that correct?

A. That sounds about right.

09:03 Q. Returning to the cases that are the subject of your deposition today that you submitted two declarations in each of these five cases; is that correct?

09:03 A. Sure, that sounds about right.

Q. You submitted a declaration in support of each petition first, correct?

A. Yes.

Q. And then you submitted a second

09:03 declaration in each case called a supplemental declaration, right?

A. For five cases.

MR. WILSON: Could we just pause and go off the record for a second.

09:03 (A recess was had.)

H. HOUGH - 11.12.24

MR. WILSON: I'm joined by Eliot Williams, Hopkins Guy, Jamie Lynn, also of Baker Botts LLP, also for patent owner Dish.

09:16 No one from your side, Philip?

MR. SHENG: No one. I don't see anybody.

MR. WILSON: Let me also introduce Joe Edell with Dish, E-D-E-L-L.

Q. Dr. Houh, you recall we were just discussing that you had first submitted an initial declaration along with petition in each of these five cases; do you recall that?

A. Yes.

Q. And that you just more recently submitted a supplemental declaration in each of these five cases, correct?

A. Yes.

Q. Do you disavow or disclaim any of the opinions in your initial declaration?

09:17 A. No, I don't. I stand by all my

opinions.

Q. Are you aware of anything in the supplemental declarations that you submitted that requires correction at this time?

A. No.

Q. I'd like to focus first on the case involving U.S. Patent Number 10,469,555. I'm handing you what's previously been marked as exhibit 1003.

(Exhibit 1003, initial declaration of Dr. Houh submitted in case IPR2024-00146 was previously marked for identification.)

Q. Take a look through that, skim it all the way to the back and note your signature on the back. And do you confirm that this is your initial declaration that you submitted in case IPR2024-00146.

A. Yes.

Q. I'll next hand you what's previously been marked as exhibit 1028.

(Exhibit 1028, supplemental

H. HOUGH - 11.12.24

declaration that Dr. Houh submitted in that same case, IPR2024-00146 was previously marked for identification.)

09:18 Q. And do the same there, skim that front to back and just confirm that that appears to be your supplemental declaration that you submitted in that same case, IPR2024-00146.

A. Yes.

Q. Now you submitted a different exhibit 1028, supplemental declaration exhibit in each of the other four cases at issue here too, right?

A. Yes, I think that's right.

Q. Would it be fair to say that the opinions in your different supplemental declarations are consistent?

09:19 MR. SHENG: Objection, form.

A. With respect to the other four, I believe they're consistent to the extent they have -- that they are discussing the same issues.

09:19 Q. They include largely overlapping

H. HOUGH - 11.12.24

opinions, correct?

A. Yes, I think they're consistent.

Q. So if I questioned you, for

09:20 example, on your testimony in the

supplemental declaration in this case,

the 00461 case, then your answers would

also apply to the other cases where you

rendered substantially the same opinions

09:20 in the other cases, correct?

A. Yes, I mean to the extent you'd

be asking me about things that are also

in the other declarations.

Q. Pick up your 1003 declaration,

09:20 your initial declaration. If you turn

to the table of contents, do you see

under Section V of the table of contents

-- excuse me, Section VIII of the table

of contents, that's Roman numeral VIII,

09:21 under VIII F you see it says claims 18

and 19 are anticipated by Ogdon?

A. I see that heading.

Q. If you can do so, please now turn

to your exhibit 1028 declaration, also

09:21 turn to the table of contents. And you

H. HOUGH - 11.12.24

see there under Section V that it says Ogdon and Allen and/or Ogdon, Allen and SMIL 2 render all challenged claims obvious? You see that?

09:21

A. Yes.

Q. Isn't it correct that you don't include a section in your exhibit 1028 supplemental declaration regarding anticipation of any claims based on Ogdon?

09:21

A. I don't see a heading there, but it might be the case that those points with respect to Ogdon might have been -- I don't recall correctly exactly the case, but might not have been rebutted in the patent owner's reply.

09:22

Q. You don't recall using the word anticipation in your 1028 declaration?

A. I don't have these declarations memorized as to exact words used everywhere.

09:22

Q. Can you turn to paragraph 3 of your 1028 declaration.

A. Okay.

09:23

H. HOUGH - 11.12.24

Q. You state that you've been asked to provide opinions regarding statements expressed in the declaration of Dr. Kevin Jeffay, correct?

09:23

A. I see some of those words. I don't think you read it word for word but I think that captures some of what I say in paragraph 3.

09:23

Q. Well you addressed Dr. Jeffay's opinions in this exhibit 1028 declaration, right?

A. Part of it, yes, sure.

Q. Fair to say that you disagree with Dr. Jeffay on some points?

09:23

A. Yes, that's fair.

Q. But you've worked with Dr. Jeffay before on patent cases, right?

A. I believe I've worked opposed to him and perhaps with him.

09:24

Q. In fact, you've each provided expert opinions for the same party in the same proceeding, correct?

A. That may be the case. But when I say I worked with him, I don't mean I

09:24

H. HOUGH - 11.12.24

literally collaborated with him. It means we were on the same side of the case. But I don't actually recall working with him, like collaborating with him or discussing anything.

Q. Did you work on the same side of a case with Dr. Jeffay on a recent case involving Nokia?

09:24 A. I mean I just went to trial for Nokia, but Dr. Jeffay was not present at that trial, I don't think.

Q. Dr. Houh, yes or no, based on your experience with Dr. Jeffay, do you agree or disagree with the statement Dr. Jeffay cannot be trusted?

A. I haven't provided any such opinions in any of my declarations here. So I want -- I -- I clearly disagree with some of his opinions that he's rendered in this case, but that's what I'm going to say.

Q. You wouldn't say he cannot be trusted?

09:25 A. I'm not here to provide opinions

H. HOUGH - 11.12.24

about that. I'm just here to provide my opinions why I disagree with Dr. Jeffay.

Q. In paragraph 6 of your 1028 declaration, you reference various materials and the opinions in your supplemental declaration are based on. You see that?

A. I think so.

Q. Taking a step back to your general process of providing expert testimony in an IPR proceeding, you typically review all papers of record in the IPR; is that fair to say?

A. I try to, yes.

Q. You review board decisions?

A. Yes.

Q. You review all the exhibits?

A. I try to review all the exhibits.

Q. And you typically review declarations?

A. From the -- yes, I mean if you mean declarations of the other side, I do.

Q. You typically review deposition

H. HOUGH - 11.12.24

transcripts in the IPR proceeding?

A. Yes.

Q. Turn to paragraph 6. You list

09:27 what you considered in rendering the opinions in this supplemental declaration, correct?

A. Sorry, what was the question again, please?

09:27 Q. Paragraph 6 is where you list the materials that you considered in rendering the opinions that you provide in the supplemental declaration; is it not?

09:27 A. At a high level.

Q. And those materials that you reviewed include exhibits to your first and supplemental declarations, correct?

A. Yes.

09:27 Q. They include Dr. Jeffay's declaration, correct?

A. I mean yes, but I don't see that listed exhibit 1028. Maybe it's captured under the exhibits in the

09:28 response.

H. HOUGH - 11.12.24

Q. In the third line down, do you see the Jeffay declaration?

A. Oh, yes, I see that. Sorry.

09:28 Q. The exhibits to Dr. Jeffay's declaration you reviewed, correct?

A. Yes.

Q. Dr. Jeffay's deposition transcript, you reviewed that, correct?

09:28 A. Yes.

Q. The declaration of Mr. Drew Major, you reviewed that, correct?

A. I mean that sounds, that sounds right. I, I'm not seeing it, exhibit

09:29 1028, listed here, but might be in exhibits.

Q. Do you recall reviewing Mr. Major's declaration?

A. It sounds vaguely familiar. I

09:29 don't remember everything I review, and I work on a lot of cases.

Q. Do you recall reviewing the deposition transcript of Mr. Major's deposition that was conducted in this

09:29 case?

H. HOUGH - 11.12.24

A. I do. I do believe so, yes.

Q. Do you recall reviewing testimony from a Mr. Dave Ericson?

09:29 A. I don't remember everything I review. I can't say if I remember that or not.

Q. Well part of his testimony was submitted in exhibit, exhibit 2063 in

09:30 this proceeding. Do you recall that?

A. I don't recall everything I review. But I try to review all the exhibits, certainly if they were cited as well.

09:30 Q. And you would have reviewed the deposition transcript of Mr. Ericsson's deposition?

A. I review a lot of deposition transcripts. I'm not sure if I have a

09:30 separate memory of everything I review.

Q. But according to your normal process, you would typically review deposition transcripts of witnesses that provide testimony in an IPR, correct?

09:30 A. If they were cited or listed as

H. HOUGH - 11.12.24

an exhibit, I would.

Q. Did you review the institution decisions in these cases?

09:30 A. I think that I did, yes.

Q. Do you recall we briefly discussed your involvement in several other IPRs involving the Ogdon reference where institution was denied?

09:31 A. Yes.

Q. Did you also review the decisions denying institution in those cases?

A. I think that I did probably. I don't -- I think that I did.

09:31 Q. You reference the Ogdon Provisional in your supplemental declaration, correct?

A. Yes.

Q. And in paragraph -- turn to

09:31 paragraph 44 of your exhibit 1028.

A. Okay.

Q. There do you see you're discussing the Ogdon Provisional?

A. Yes.

09:31 Q. And you see that it states the

H. HOUGH - 11.12.24

data used during the show and cached by the M.Show client software is deleted.

Do you see that?

09:32 A. Yes.

Q. Isn't it true that M.Show is a product referenced in the Ogdon Provisional?

A. I mean it's referenced right here

09:32 and that's from the Ogdon Provisional.

Q. And you're aware that M.Show.com is listed on the face of the Ogdon patent as the assignee?

A. I don't remember everything that

09:32 I've seen on the face of the patent. I mean that might be right, I just don't remember that.

Q. If you turn to paragraph 54 of your supplemental declaration. In the

09:32 second sentence there you say the argument that elements in Ogdon are PowerPoint slides that do not have a duration and that videos are on the PowerPoint slides has no basis in

09:33 Ogdon's disclosures.

H. HOUGH - 11.12.24

Do you see that?

A. I wasn't -- I'm not sure where you pointing to or you were reading from. I might see it now but I wasn't looking there when you read it.

Q. Apologies. So you see the second sentence there, further, the argument that elements in Ogdon are PowerPoint slides that do not have a duration and that the videos are on the PowerPoint slides has no basis in Ogdon's disclosures.

Do you see that now?

09:33 A. Yes.

Q. Isn't it true that the M.Show product you referenced earlier in paragraph 44 of your declaration did deliver Microsoft PowerPoint slide show presentations?

MR. SHENG: Objection, form.

A. I'd have to look at the provisional disclosure to confirm that one way or the other.

09:34 Q. These are not collated, so bear

H. HOUGH - 11.12.24

with me here.

I'll hand you what I'll asked to be marked as Deposition Exhibit 1.

09:35 (Exhibit 1, 1999 article "It's MShow Time" was marked for identification.)

MR. SHENG: I'm just going to lodge an objection to exhibit 1 as

09:35 outside the scope of Dr. Houh's supplemental declaration.

Q. Dr. Houh, do you see the Westlaw branding at the bottom of this?

A. Yes.

09:35 Q. And do you see at the top it says It's MShow Time? Do you see that?

A. Yes. I'm not usually given highlighted exhibits, but I see your highlights and it's, I see that in the

09:35 title.

Q. And do you see the date of September 20th, 1999 in the title there?

A. Yes.

Q. Any reason to dispute that this

09:36 is a news article archived on Westlaw?

H. HOUGH - 11.12.24

A. I wouldn't have any basis to dispute that.

Q. You said you saw it says it's MShow Time at the top, correct?

A. Yes.

Q. And you see M.Show referenced throughout this document?

A. Yes.

09:36 Q. And M.Show is the name of the product you identify in your supplemental declaration, correct?

A. I did reference M.Show in my supplemental declaration.

09:36 Q. In the first paragraph, do you see where it says, M.Show.com, an 85 person company that develops and markets interactive broadcasting services, is targeting both service providers and

09:37 business customers with its M.Show service. It combines traditional conference calls with Internet-delivered Microsoft PowerPoint slides to give all the elements of a real-world

09:37 meeting-without the airfare or rubber

H. HOUGH - 11.12.24

chicken lunches -- luncheons.

Do you see that?

A. Yes.

09:37 Q. Turn back to your exhibit 1028 declaration at page 6. You begin a section there entitled video streaming, including adaptive rate streaming, was common and well known before 2004.

09:38 A. Yes.

Q. 2004 is the earliest challenged date of the claimed patents; is that correct?

A. I mean I have to take a look, but

09:38 I assume so given that I'm using that date here.

Q. You state in paragraph 17 that Dr. Jeffay was incorrect when he said that video streaming was extremely rare

09:38 from the time period of 1997 to the priority date. Do you see that?

A. Yes, I see that.

Q. Isn't it true that Dr. Jeffay never said that?

09:38 MR. SHENG: Objection, form.

H. HOUGH - 11.12.24

A. I'm citing to paragraph, exhibit 2006 so I could -- we can take a look at that.

09:39 (Exhibit 2006, exhibit 2006 that Dr. Houh cites in paragraph 17 of his supplemental declaration was previously marked for identification.)

09:39 Q. I'll hand you what's previously been marked as exhibit 2006.

A. Thank you.

Q. And if you skim that, just confirm that that indeed appears to be

09:40 the exhibit 2006 that you cite in paragraph 17 of your supplemental declaration.

Dr. Houh, I don't mean to rush you but the question is just to confirm

09:43 that this appears to be the exhibit 2006 that you cited?

A. It appears to be marked that way.

Q. If you can turn to page 22, do you see the footnote 3 that you cite to

09:44 in your paragraph 17?

H. HOUGH - 11.12.24

MR. SHENG: Andrew, do you have a copy for counsel?

MR. WILSON: Apologies.

09:44 MR. SHENG: Thank you.

A. I see that.

Q. Nowhere in this footnote does Dr. Jeffay say anything about video streaming from the time frame of 1997 to

09:44 the priority date of the challenged patents, does he?

MR. SHENG: Objection, form.

A. Well I see here that he says that it's -- he says video streaming would

09:45 have been extremely rare and expensive in 1997, and I do see the patent owner response there, what I've cited to, including the words up through the patent, through the 2004 priority date.

09:46 If I could see a copy of the patent owner response.

Q. I'm sorry, you're referring to paragraph 17?

A. Yes.

09:46 Q. You see a citation to the patent

H. HOUGH - 11.12.24

owner response after your statement Dr. Jeffay opines that video streaming was extremely rare from the time frame of 1997 to the priority date?

09:46

A. I just want to see what the patent owner's response is referencing, if they were also referencing Dr. Jeffay's statement there.

09:46

Q. But you don't see anything in footnote 3 of exhibit 2006 that refers to video streaming being rare from the time frame of 1997 to the priority date of the challenged patents, correct?

09:46

A. Not those words, not some of those words in footnote 3. But I just want to see what the patent owner response which does use that language, was citing to.

09:47

Q. In fact, footnote 3 says Ogdon acknowledges the telepresentations and video conferences were growing in popularity in the 1997 time frame of Ogdon's earliest claim priority date. These technologies were early ancestors

09:47

H. HOUGH - 11.12.24

of today's Zoom meetings where live video feed, typically of a room, would be captured at one conference site and
09:47 distributed to one or more remote sites via a network typically comprised of dedicated telecommunications circuits. Audio was typically disseminated via conventional telephone because it was
09:48 very difficult to beat the quality of telephony audio. However, it may also be distributed by a data network technology.

However, these telepresentations
09:48 video conferences required expensive and specialized video conferencing systems. Indeed, a POSITA would have understood that video conference telepresentations or video streaming would have been
09:48 extremely rare and expensive in 1997, particularly in typical home or even office settings where network bandwidth and access to video conferencing hardware was extremely limited. Ogdon
09:48 confirms that the availability and use

H. HOUGH - 11.12.24

of such conferencing systems was limited.

Do you see that?

09:49 A. Yes, I see that but I disagree with parts of it. And I'm pretty sure Ogdon explicitly talks about video and audio being distributed by --

MR. WILSON: Excuse me. Excuse

09:49 me. Objection, nonresponsive.

Q. Dr. Houh, in 1997 consumers would generally watch TV via cable broadcast television, correct?

A. Perhaps some.

09:49 Q. You can't name any commercial video streaming systems in 1997 that allowed people to watch live broadcast television by video streaming, can you?

MR. SHENG: Objection, form.

09:49 A. We had some demonstrations available in -- at my lab in, starting in -- within our lab in 1993 and we made some public demonstrations available in 1994 that allowed -- we certainly within

09:50 our lab could stream live TV within the

H. HOUGH - 11.12.24

computers in our group, and we made some of those demonstrations available on the Web in 1994.

09:50 Q. But no commercial video streaming services, correct?

A. Our service was not commercial, no. But I --

Q. Turning to exhibit 2024.

09:50 MR. SHENG: Hold on.

A. But that was just with respect to our system.

Q. I'm sorry. Turning to the 2004 time period. You couldn't stream video

09:50 on YouTube, right?

A. I don't remember when YouTube first came out, but it may well have been after that. I just don't remember the timeline.

09:51 Q. In fact, YouTube hadn't been created yet, correct?

MR. SHENG: Objection, form.

A. I don't know the exact timeline and dates offhand.

09:51 Q. You couldn't stream video on

H. HOUGH - 11.12.24

Netflix, right?

MR. SHENG: Objection, form.

Q. I'll reask. In the 2004 period,

09:51 you couldn't stream video on Netflix,

correct?

A. I don't remember when Netflix

started their streaming service,

offhand.

09:51 Q. You couldn't stream video on

Amazon Prime, correct?

MR. SHENG: Objection, form.

A. I don't remember the exact dates

Amazon Prime started, but that might be

09:52 right.

Q. In 2004, you couldn't stream

video on Facebook, right?

A. I don't recall Facebook was out

in 2004. It might not have been. I

09:52 don't recall offhand, though.

Q. And isn't it true that Instagram

and TikTok did not yet exist at that

time, the 2004 period?

A. I don't have those timelines

09:52 memorized. I don't know for sure one

H. HOUGH - 11.12.24

way or the other.

Q. iPhones didn't exist yet in 2004, correct?

09:52 A. Yes, I think that's right.

Q. You agree that most, if not all, services that customers use today to stream video didn't exist in 1997 certainly, correct?

09:53 MR. SHENG: Objection, form.

A. What was the question again, please?

Q. You'd agree that most, if not all, services that customers use to

09:53 stream video today didn't exist in 1997, correct?

MR. SHENG: Same objection.

A. If you're referring to all the modern services today used, no, no.

09:53 That quite could -- that quite possibly could be correct.

Q. And the same is true for 2004, correct? You would agree that most, if not all, services that customers used

09:53 today to stream video didn't exist in

H. HOUGH - 11.12.24

2004?

MR. SHENG: Objection, form.

A. I, I might agree to the most, but

09:53 I'm not sure about all. I don't know

all the timelines.

Q. And there certainly wasn't any

commercial service available to stream

full length television shows or movies

09:54 in 2004, right?

MR. SHENG: Objection, form.

A. I'm not sure if that's right.

Q. I'll hand you what I'll ask to be

marked as Deposition Exhibit 2.

09:55 (Exhibit 2, document entitled

Peloton Interactive, Inc was marked

for identification.)

Q. Take a look at this document.

Let me know if you recognize it?

09:56 A. I do recognize it.

Q. You recall that this is a

declaration submitted in IPR2020-01541

that you submitted on behalf of patent

owner Peloton; is that correct?

09:56 A. Yes.

H. HOUGH - 11.12.24

Q. If you go to paragraph 108, do you see there you're discussing a reference called Garcia?

09:56 A. So this is not what I submitted because it has highlights that I don't think they were there when I submitted it but I would have to double-check.

Q. I'll represent to you that this

09:56 is the version that was found on public docket searches, so.

A. Okay.

Q. And you see there you're quoting a portion of Garcia, correct?

09:59 A. I see that citation to Garcia.

Q. Do you recall the reference Garcia?

A. Not really. It was a while ago.

Q. I'll represent to you that Garcia

10:00 was filed in 2010 and published in 2011. Do you have any reason to dispute that?

A. I --

MR. SHENG: I'll just lodge an objection here. Dr. Houh has never

10:00 seen this document -- well hasn't

H. HOUGH - 11.12.24

reviewed this document recently until today. So that question I'll object to form and outside the scope.

10:00 A. I don't, but I don't know the priority, the claim priority date offhand.

Q. Do you see in paragraph 108 in the portion that you cite of Garcia, you

10:00 say -- well, before that, you say Garcia explains that its video streaming was made practical and cost-effective by the declining costs and increasing availability and reliability of video

10:01 streaming over the Internet. Until recent years, the technology of sending live video feeds through the Internet was too costly and not yet reliable.

MR. SHENG: Objection, form.

10:01 Q. Do you see that?

A. I didn't see what you first read in the Garcia citation. Are you reading from paragraph 108 before you started reading from the middle of the cited

10:01 portion?

H. HOUGH - 11.12.24

Q. Yes, yes. So the first part, paragraph 108, your words, Garcia explains that its video streaming was made practical and cost effective by the declining costs and increasing availability and reliability of video streaming over the Internet.

You see that part, correct?

10:02 A. Yes, I see that.

Q. And then within the text that you quote from Garcia, until recent years, the technology of sending live video feeds through the Internet was too costly and not yet reliable.

10:02 You see that now?

A. Yes.

Q. Yes or no, Dr. Houh, do you agree or disagree with the portion of Garcia that you chose to reproduce here that was just read into the record?

10:02 MR. SHENG: Objection, form.

A. Well, I need to consider the context and the actual priority date of Garcia. But in, you know, I'm not going

H. HOUGH - 11.12.24

to -- I mean this was what I submitted and what I pointed to earlier. But I would need to consider the whole

10:03 context. And it certainly says that, you know, that, it certainly says that it has become a reality at the end of that.

MR. WILSON: And I object as

10:03 nonresponsive.

Q. Dr. Houh, yes or no, do you agree or disagree with this portion of Garcia that you chose to reproduce in your declaration here?

10:03 MR. SHENG: Doctor, you can answer the question however you feel is necessary to give truthful testimony today.

A. Yes, I mean I don't recall

10:03 offhand the actual priority date of this reference. But certainly it says here that it's become a reality. And I'd have to consider the context of what it's saying about until recent years.

10:04 Q. Sitting here today, you don't

H. HOUGH - 11.12.24

dispute it?

MR. SHENG: Objection, form.

A. Well, I'm not, I'm not disputing

10:04 the words that are on the paper here.

But again, you know, I don't know their

actual priority date of the Garcia

reference and I'd have to consider the

context. And it certainly says here

10:04 that it has become a reality. That

advances in video streaming technology

and the widespread availability of

broadband Internet connections, which I

know I got at my house in the year 2000,

10:04 the ability to provide live Internet

active access to numerous exercise

fitness facilities has become a reality.

Q. Dr. Houh, just for completeness,

can you just verify that this is exhibit

10:04 2002-001 submitted in the Peloton

interactive -- excuse me, submitted in

the Echelon v. Peloton, IPR 2020-01541?

MR. SHENG: Objection, form.

Q. Correct?

10:05 A. I think it's simply exhibit 2002.

H. HOUGH - 11.12.24

There are page numbers after that. You added the 001 which is the first page.

Q. Fair enough. If we go back to your supplemental declaration, that's exhibit 1028. If we go to paragraph 18. Towards the bottom of that paragraph or that page, rather, page 6, you cite to the Ogdon Provisional, correct?

10:06 A. Yes.

Q. The Ogdon Provisional that you cite here is different from the Ogdon patent that you rely on, correct?

MR. SHENG: Objection, form.

10:06 A. I certainly -- I think certainly portions are different. But it's the Ogdon Provisional.

Q. It's a separate document, correct?

10:06 A. I believe so, yes.

Q. And you don't identify the Ogdon Provisional in any of your grounds of unpatentability, correct?

A. I believe that's correct.

10:06 Q. Are you familiar with the term

H. HOUGH - 11.12.24

incorporate by reference?

A. Yes.

Q. You don't contend that the Ogdon

10:06 Provisional is incorporated by reference

into the Ogdon patent, do you?

MR. SHENG: Objection, legal,

calls for legal conclusion.

A. Yeah, I don't remember if it uses

10:07 those words in there or not. I could

take a look at Ogdon if you want me to.

Q. Well it's true at least that you

don't state that Ogdon incorporates by

reference the Ogdon Provisional anywhere

10:07 in your supplemental declaration,

correct?

A. I don't have every word memorized

but that could be correct. But I'm

citing to it here because it informs the

10:07 POSITA of the context... for Ogdon.

Q. Do you know whether the Ogdon

Provisional was ever published in a

pre-grant patent application

publication?

10:08 MR. SHENG: Objection, form.

H. HOUGH - 11.12.24

A. I -- I'm not sure if I have discussed that anywhere here.

Q. In fact, the Ogdon Provisional did not publish as a patent document, correct?

MR. SHENG: Objection, form.

A. I -- that may be correct. I just -- I don't know for sure.

10:09 Q. In paragraph 18 at the very bottom of page 6 you say, any POSITA will recall that in 1995 the MBONE was used to stream a Rolling Stones concert over the Internet live to thousands of fans from the Cotton Bowl in Dallas. Do you see that?

A. Yes.

Q. And you cite to exhibit 1018 for that, correct?

10:09 A. Yes.

Q. Hand you what's previously been marked as exhibit 1018.

(Exhibit 1018, New York Times article, February 8, 1995 was previously marked for

H. HOUGH - 11.12.24

identification.)

Q. You recognize this document?

A. Yes.

10:10 Q. And this is New York Times article; is that correct?

A. Yes.

Q. And what is the date at the top of this?

10:11 A. February 8th, 1995.

Q. And this is the article that you referenced in paragraph 18 of your supplemental declaration, right?

A. Yes.

10:11 Q. Now this doesn't say that M-bone was used to broadcast the Rolling Stones concert to thousands of fans, does it?

A. I don't see a reference to the number of fans, but I stand by that

10:13 statement.

Q. Did you find this exhibit 1018?

A. Yes, I probably did.

Q. It wasn't given to you by counsel?

10:13 A. No, I'm sure it wasn't.

H. HOUGH - 11.12.24

Q. Turning back to the Rolling Stones concert broadcast on M-bone, in fact, that concert was only broadcast to only one or 200 computers at most, correct?

MR. SHENG: Objection, form.

A. I don't see anything like that in this document.

10:15 Q. Hand you what I'll ask to be marked as Deposition Exhibit 3.

(Exhibit 3, Stones Rolling on the Superhighway, Baltimore Sun was marked for identification.)

10:15 Q. Do you see again the NewsRoom and Westlaw branding on this document?

A. Yes.

Q. And do you see on the top it says Stones Rolling on the Superhighway?

10:15 A. Yes.

Q. And in sort of the middle of the title content it says Baltimore Sun copyright the Baltimore Sun 1994. Do you see that?

10:16 A. Yes.

H. HOUGH - 11.12.24

Q. Do you have any reason to dispute that this is an archived news publication, news article, excuse me?

10:16 A. No.

Q. If you go to page 2, in the middle of the page, do you see there it says the technology may be out there, but it isn't accessible -- well, strike

10:16 that.

Do you see here that this is addressing, in general, that this article is about the Rolling Stones broadcast on M-bone, correct?

10:17 A. I mean I don't think I'd seen this article before. But, sure.

Q. And then returning to page 2, again that same sort of middle of the page, the technology may be out there,

10:17 but it isn't accessible to many people. Because it takes a high-end computer known as a workstation and a telephone connection that can cost up to $20,000 to receive the M-bone, few computers

10:17 other than those at universities and

H. HOUGH - 11.12.24

corporations have access to it. In the end, only about 200 computer sites logged on for the program, but some of
10:17 the recipients were from as far away as Iceland and New Zealand and another was at the United States Department of Defense.

Do you see that?

10:17 A. Yes.

Q. Do you know roughly how many computers would have been connected to the Internet in the 1994 time period?

A. I probably had seen numbers like
10:18 that, but I don't recall them offhand now.

Q. Would it surprise you to learn that it's 30 million computers?

A. I mean I don't know if I'd be
10:18 surprised one way or the other if that's what you say. But again, I don't recall the exact numbers back then.

Q. You recall I previously asked you about whether counsel had provided you
10:18 the exhibit 1018 document? Do you

H. HOUGH - 11.12.24

recall that?

A. Yes.

Q. And you had answered that you had

10:18 found it, correct?

A. I think I probably did, yes.

I've known about this article perhaps

since it was published.

Q. Did you look for other

10:19 discussions of the concert when crafting

your supplemental declaration?

A. I don't recall doing so. But I

do recall this article generally, and I

probably already had it in my archives.

10:19 Q. Dr. Houh, now would be an okay

time to take a break if you're --

A. Sure.

MR. WILSON: Go off the record.

(A recess was had.)

10:32 MR. WILSON: Back on the record.

Q. Dr. Houh, did you discuss the

substance of your testimony with your

attorneys --

A. No.

10:32 Q. -- during the break?

H. HOUGH - 11.12.24

I'd like to hand you -- well, I'll start with this. If you turn to your exhibit 1028 declaration, in
10:32 paragraph 29, you see you're addressing an argument by patent owner and Dr. Jeffay where they argue that the board correctly found that Ogdon does not teach storing multiple copies of the
10:33 same video? Do you see that?

A. Yes, I mean correctly found is in quotes. And so is, so are other parts of what you read.

Q. Got it. You're paraphrasing or
10:33 quoting an argument made by patent owner and Dr. Jeffay there, correct?

A. That's right.

Q. And in your opinion, the board got that wrong?

10:33 A. I mean I'm pointing out if you look in paragraph 30 that this requirement of copies or same video, those words do not appear anywhere in the claims of the '555 patent.

10:34 Q. Well, do you disagree -- strike

H. HOUGH - 11.12.24

that.

You disagree with the board's finding that Ogdon does not teach storing multiple copies of the same video; fair to say?

A. I'm actually disagreeing with patent owner Dr. Jeffay's arguments about requirements of the '555 patent claims that aren't there because the '555 patent claim I believe uses the word correspond, corresponds to the same part as opposed to requiring a copy of the same video.

Q. If the board were to find that Ogdon does not teach storing multiple copies of the same video, you would disagree with that, correct?

MR. SHENG: Objection, form.

A. I'm not sure why the board would use language that's not part of the claims in their analysis for this particular claim and its corresponding requirement.

Q. It's more than just a semantic

H. HOUGH - 11.12.24

disagreement, though, that Ogdon does not use those exact words, correct?

MR. SHENG: Objection, form.

10:35 A. I think it's factual as to what claim 1, what words are used in claim 1.

Q. In paragraph 30 you say that copies and same video don't appear in the claims of the '555 patent, correct?

10:36 A. That's what I say. You paraphrased a bit, but sure.

Q. At best, you say, the '555 patent requires streamlet to correspond to the same parts of the video, correct?

10:36 MR. SHENG: Objection, form.

A. I mean you omitted a word there but I wouldn't -- I'm not going to dispute your paragraph phrasing.

Q. But the claims actually require

10:36 that the video streams be the same underlying video, don't they?

MR. SHENG: Objection, form.

A. I mean could I see a copy of the '555 patent, please?

10:37 Q. I'll hand you that in a second.

H. HOUGH - 11.12.24

But the claims specifically recite a single video that's encoded at a plurality of bit rates to create a
10:37 plurality of video streams; isn't that correct?

A. I don't have the words memorized but there might be something that sounds like that in the claim language.

10:37 Q. I'm going to hand you a stack of documents that have each been previously marked as exhibit 1001 in each of the five proceedings.

(Exhibit 1001, US Patents '555,
10:37 '798, '138, '554, '680 was previously marked for identification.)

Q. And first, briefly, do these appear to be the exhibit 1001 documents that you reviewed.

10:38 A. Yes, they do.

Q. And if we start with the one marked for the '555 patent. You'd agree this is a copy of the '555 patent?

A. Yes.

10:38 Q. If you turn to claim 18.

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 50
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

H. HOUGH - 11.12.24

A. Okay.

Q. Do you see there it says a system for adaptive rate content streaming of live event video? You see that?

10:39

A. Yes.

Q. And then in sort of the second paragraph that's indented it says, the live event video encoded at a plurality of different bit rates creating a plurality of streams. Do you see that?

10:39

A. Yes.

Q. And if we turn now to the '680 patent, turn to claim 1.

10:39

A. Okay.

Q. Do you see there it's very similar language, streaming of video, the video encoded at a plurality of different bit rates creating a plurality of streams?

10:40

MR. SHENG: Which paragraph? Which line are you looking at?

MR. WILSON: Line 1 of -- well, line 24 of column 18.

10:40

MR. SHENG: Okay.

H. HOUGH - 11.12.24

A. I don't see streaming of video there.

Q. In the '680 patent, I'm in claim 1, the first line of claim 1.

A. Okay, okay, adaptive rate content streaming of video. I see that there.

Q. And then the third paragraph is indented, wherein the video encoded at a plurality of different bit rates creating a plurality of streams. You see that?

A. Yes.

Q. Now each of the other asserted patents includes either identical or very similar language in claim 1 --

MR. SHENG: Objection, form.

Q. -- is that correct?

MR. SHENG: Objection, form.

A. With respect to those words there's some similarities, similar words in the other, the other exhibit 1001s.

Q. And if we turn to your exhibit 1028, again at paragraph 30. And there you say as a threshold matter, copies

H. HOUGH - 11.12.24

and same video do not appear anywhere in the claims of the '555 patent. At best, the '555 patent requires each streamlet to correspond to the same part of the video.

10:43 to correspond to the same part of the

Do you see that?

A. Yes.

Q. You don't address the claim

10:43 language that we just went through in this paragraph 30, do you?

A. I think I am addressing that. I'm talking about corresponding segments, and those are the

10:44 corresponding segments that are encoded at different bit rates for the same portion of the same segment. So I wouldn't, I wouldn't agree with you there.

10:44 Q. You don't quote the claim language, the live event video encoded at a plurality of different bit rates creating a plurality of streams, in this paragraph 30, correct?

10:44 A. Not those words in paragraph 30,

H. HOUGH - 11.12.24

in just paragraph 30, no.

Q. And you don't quote that claim language anywhere in the supplemental declaration, correct?

MR. SHENG: Objection, form.

A. I mean if you want me to look through here I could, but I don't have every word memorized.

Q. In paragraph 31 you state that Ogdon repeatedly explains that the different versions of a video presentation are indeed copies of the same video presentation. Do you see that?

A. This is to the extent that the claims actually are deemed to require copies of the same video.

Q. And you provide on the next page after that sentence a series of citations and quotations. Do you see that?

A. Yes.

Q. Taking the first one, you cite to Ogdon at column 2, line 30 as saying

H. HOUGH - 11.12.24

different versions of the same presentation, correct?

A. That's right.

10:46 Q. But that section of Ogdon isn't talking about encoding the same video at different bit rates, right?

MR. SHENG: Objection, form.

A. If you take Ogdon as a whole,

10:46 this is supporting what I'm saying here.

Q. Well that section of Ogdon that you cite to first isn't talking about different copies of the same presentation, is it?

10:46 MR. SHENG: Objection, form.

A. Do I have a copy of Ogdon here yet?

Q. You don't recall offhand?

A. I don't have photographic memory

10:46 where I can recall instantly every word in everything I've looked at.

(Exhibit 1004, Ogdon patent, 6,161,137 was previously marked for identification.)

10:47 Q. I'll hand you what's previously

H. HOUGH - 11.12.24

been marked exhibit 1004.

A. Thank you.

MR. SHENG: Thank you.

10:48 Q. So Ogdon, at that section you cite to, column 2, line 30 is actually talking about different versions of a presentation such as one for Japanese audience members and one for members

10:48 affiliated with a particular organization, correct?

A. If you're referring to the sentences after the line I said it. But again, if you consider Ogdon as a whole,

10:49 these are the citations that I included that support my statements here.

Q. Ogdon doesn't disclose coding the same video at different bit rates there.

MR. SHENG: Objection, form.

10:49 A. If you're referring to lines 30 through 35 doesn't use those words. But again, considering Ogdon as a whole, these are the citations that I'm included -- that I've included to

10:50 support my statements in this paragraph.

H. HOUGH - 11.12.24

Q. Well in fact none of the quoted portions of Ogdon that you string cite here disclose encoding the same video at
10:50 different bit rates?

MR. SHENG: Objection, form.

A. I mean if you look at my analysis in my opening declaration, I believe I at least address that there. This
10:50 section --

Q. This paragraph 32?

A. I'm sorry, I just thought of something. This section is in response to Dr. Jeffay's arguments about, about,
10:50 you know, copies of the same video and related issues are there. So if you're looking for what I said about different bit rates, I've at least addressed that in my opening declaration.

10:51 Q. In paragraph 32 of your exhibit 1028 declaration, you state that Dr. Jeffay appears to be making an argument that when Ogdon describes content as corresponding across the segments in the
10:51 different versions, it is somehow

H. HOUGH - 11.12.24

describing something different from the same content.

Do you see that?

10:51 A. Yes.

Q. You further say that, interpretation is inconsistent with how a POSITA would have understood corresponding in 1997, correct?

10:51 A. I do say that.

Q. And you point to dictionary definitions to define corresponding, correct?

A. I -- yes.

10:52 Q. And one dictionary definition that you identify defines corresponding as identical in all essentials or respects, correct?

A. That's what I've cited here.

10:52 Q. If you consider two audio recordings where one is recorded in English and the other is recorded in Spanish, you wouldn't consider those recordings to be identical, would you?

10:53 A. If they conveyed -- I have to

H. HOUGH - 11.12.24

consider the context of that. But if they conveyed the same essential information, they may not do it in the 10:53 same language but I'd have to consider the context.

Q. So it's your testimony that depending on the context, an audio recording recorded in English and a 10:53 separate audio recording recorded in Spanish could be identical?

MR. SHENG: Objection, form.

A. Depending on the context, they could be. They could be corresponding 10:53 to each other. And certainly we could look at the extended dictionary definitions here. But this is what I've cited with respect to the rebuttal points of, you know, to the extent that 10:54 the claims are deemed to require copies of the same video then this is my support for that with respect to the copies. And citing the corresponding definitions that include things that are 10:54 identical or the same.

H. HOUGH - 11.12.24

But if you look at these, there's potentially broader definitions of corresponding. But this is with respect
10:54 to the rebuttal point that Dr. Jeffay and patent owner seem to require copies of the same video that in some meanings corresponding does refer to identical or the same.

10:54 Q. So the term corresponding doesn't require that the two items being compared be identical?

A. In part, in partly these dictionary definitions I've cited
10:54 because it appears that Dr. Jeffay is seeming and patent owner seem to require copies of the same video.

My point is Ogdon, to the extent that actually is required by the claim
10:55 language, Ogdon is still teaching this because Ogdon discusses corresponding, it uses the word corresponding and describes the content as corresponding.

And under these dictionary
10:55 definitions, corresponding includes

H. HOUGH - 11.12.24

identical or things that are defined the same as corresponding.

So this is a, really a rebuttal

10:55 point to the extent that it's required in Ogdon.

I'm not saying this is -- I think you're asking a slightly different question. This is a rebuttal point

10:55 about Dr. Jeffay's statement that appears, that he seems to somehow require copies of the same video. And to the extent that is the actual thing that the claims are deemed to require,

10:56 then Ogdon is still teaching that.

Q. The hypothetical two audio recordings, one in English, one in Spanish, if you listen to them they're not identical, are they?

10:56 MR. SHENG: Objection, form.

A. So corresponding -- so what I've cited here are corresponding to the extent requires things to be copies or -- of the same video, whatever Dr.

10:56 Jeffay says.

H. HOUGH - 11.12.24

Now corresponding has broader meanings. But my point here is this is a rebuttal point. And to the extent
10:56 that it's found that the claims actually require that the videos be copies of the same video, then Ogdon is teaching that because under some definitions of corresponding he talks about the
10:57 dictionaries refer to that as things being identical or the same or identical in all essential respects.

And so that's the point here. I'm not, I'm not trying to make that
10:57 point. That's a different point that you're asking about.

This is with respect to specifically Dr. Jeffay's apparent requirement that, that Ogdon is not
10:57 teaching copies of the same video.

And Ogdon is teaching content is corresponding across the segments of different versions and that under some definitions of corresponding that I've
10:57 cited here, that they do show identical,

H. HOUGH - 11.12.24

that corresponding is -- does include identical in all essential, essential respects.

10:57 You're asking a different question that I'm not directly addressing here because this section is a rebuttal to what Dr. Jeffay and patent owner seems to require of the same video

10:57 presentation at different quality levels.

Q. Dr. Houh, are you able to answer whether the hypothetical of two audio recordings, one in English, one in

10:58 Spanish, whether those are identical, set aside the rebuttal argument that you're making? Are you able to answer that?

MR. SHENG: Objection, form.

10:58 A. That's not what I'm addressing here. This is a hypothetical as you rightfully recognized that I'm not directly addressing. What I'm addressing in my declaration,

10:58 supplemental declaration is a different

H. HOUGH - 11.12.24

point as to that Dr. Jeffay appears to be arguing that the claims require copies of the same video. And to the
10:58 extent that is what's found to be what the claims require.

Ogdon is still teaching corresponding content under -- which include in these dictionary definitions
10:59 things that are identical. And so that hypothetical is not what I'm addressing here. And I would have to consider the context of -- of -- of that.

Q. The dictionary definitions you
10:59 cite to also include things that are not identical; is that correct?

A. I mean we can look at the dictionary definitions. But the reason I cited to these is to the extent the
10:59 claims do require copies of the same video in the way that Dr. Jeffay and patent owner seem to imply, then Ogdon is describing already corresponding content where corresponding includes in
10:59 these various dictionary definitions the

H. HOUGH - 11.12.24

sense that things are identical in all essential or respects or identical with what is about to be or just -- or has

11:00 just been mentioned.

And that's the point.

This is, to the extent that it's required by the claims, the sense that Dr. Jeffay and patent owner seem to be

11:00 implying, then Ogdon is already -- is disclosing this. And this is what I'm citing to. Because these definitions of corresponding include being identical in all essentials and respects.

11:00 Q. So you don't dispute that Ogdon discloses a presentation segment with a graphic in English and a corresponding presentation segment with a graphic in Japanese?

11:00 A. Yes, I'm not disputing that. But the point, this is a rebuttal point which is different than what you're asking about there.

Q. And you don't dispute that Ogdon

11:01 prescribes prerecorded audio

H. HOUGH - 11.12.24

presentations of different segments in different languages as corresponding, correct?

11:01 MR. SHENG: Objection, form.

A. Well, that's not the point here. They may fit under, you know, in the context where they are corresponding. But on their other definitions, but the

11:01 reasons I cited these definitions was because to the extent that -- to the extent that the claims require copies of the same video and that that those in content are different as maybe the

11:01 example, you know, maybe what you're trying to imply by this example, but Ogdon is teaching that there are, there's content that is across the segments which under dictionary

11:02 definitions include the notion that they are identical in all essentials and respects.

And so to the extent that the claims are to be read strictly under Dr.

11:02 Jeffay and patent owner's implied

H. HOUGH - 11.12.24

construction or reading, then Ogdon is teaching this point already because it doesn't talk about corresponding content.

11:02 I'm not -- and not -- and you're asking about a lot. There's a lot of other things that Ogdon describes that I might not be pointing to to support all of my points here. But one thing that Ogdon does describe, it describes content as corresponding across the segments in different versions. And under some dictionary definitions of that includes the sense where they are identical.

So under Dr. Jeffay and patent owner's implied construction or the way they are sensing this word that the claim language should be interpreted, Ogdon is disclosing that if that's required.

Q. Can you turn to paragraph 34 of your exhibit 1028 declaration.

11:03 A. Okay.

H. HOUGH - 11.12.24

Q. In that first sentence you say, beginning in sort of the middle of the sentence, it is worth noting that a
11:03 POSITA in the late 1990s would have understood Ogdon's disclosure of "slide show format" and "slide show alternative" to mean a very low frame rate video.

11:04 Do you see that?

A. Yes.

Q. And towards the bottom of this page 16 in the same paragraph you state, and by 1999, any POSITA would know that
11:04 with the RealPlayer's RealVideo encoding tool, that you could choose to encode a large video for low bandwidth as a slide show, which streams approximately one frame per second.

11:04 Do you see that?

A. Yes.

Q. Are you aware that the RealPlayer document that you cite to here at the end of this sentence repeatedly
11:05 references image slide shows?

H. HOUGH - 11.12.24

MR. SHENG: Objection, form.

A. Again, I don't remember every word of every document that I've read.

11:05 (Exhibit 1031, realsystem G2 was previously marked for identification.)

Q. I hand you what's previously been marked exhibit 1031. And you recognize

11:05 this as the real system production guide that you cited in your declaration as exhibit 1031?

A. Yes.

Q. If you turn to the very start of

11:06 chapter 1 on page 5. Do you see under new streaming possibilities, the first sentence says RealText and RealPix let you stream text and create streaming slide shows that use special effects

11:06 such as fades and zooms?

Do you see that?

A. Yes.

Q. Can you turn to page 13. Do you see it says you can also assemble JPEG

11:06 and GIF images in a RealPix presentation

H. HOUGH - 11.12.24

to create eye catching slide shows? Do you see that?

A. Yes.

11:06 Q. And JPEG there, that's an image format, correct?

A. Yes.

Q. On page 54, under the Tip heading, it says use RealVideo to show

11:07 the speaker and a RealPix slide show to present visual aids such as information written on a blackboard.

Do you see that?

A. Yes.

11:07 MR. SHENG: I'm sorry, Andrew, where were you reading from? I didn't find it.

MR. WILSON: Middle of page 54, middle of the tip.

11:08 Q. Dr. Houh, are you familiar with minimum frame rates required for the human eye to perceive continuous motion?

A. Generally, I believe so.

Q. What are those frame rates?

11:08 A. Well, I think at around 24 or 30,

H. HOUGH - 11.12.24

to 30 frames a second, that the eye generally perceives that kind of continuous motion.

11:08 Q. And below 24 to 30 frames per second, stated conversely, the eye does not perceive continuous motion, correct?

A. There might be some gray area but certainly by, you know, one frame every

11:09 five seconds or so, you know, then the eye is -- that might be a different domain.

Q. And back to 1028, paragraph 34, in the middle of page 16, you cite to an

11:09 exhibit 1019. Do you see that?

A. Sorry, where are you again, please?

Q. This is your 1028 declaration in the '555 patent case, paragraph 34,

11:09 middle of page 16 and where you're citing to an exhibit 1019 at page 270 with a quote that modem speeds.

Do you see that that quote?

A. Yes.

11:10 Q. It says at modem speeds the MPEG

H. HOUGH - 11.12.24

based systems revert to slide show type video.

Do you see that?

11:10 A. Yes.

Q. What does MPEG refer to there?

A. There's a video coding standard, or a class of standards, perhaps, that encode video.

11:10 Q. And there was an MPEG-1 standard, correct?

A. Yes, I believe so.

Q. There's an MPEG-2 standard as well, correct?

11:10 A. I think that's right.

Q. And MPEG-1 was designed to handle the 24 to 30 frames per second video that you had just discussed; isn't that correct?

11:11 MR. SHENG: Objection, form.

A. I mean I don't remember how it's characterized but I think it's been used to encode video at such a frame rate, I believe.

11:11 Q. And MPEG-2, same thing, commonly

H. HOUGH - 11.12.24

used -- well, strike that.

Are you familiar with profiles in the MPEG-2 standard?

11:11 A. I think so. I certainly have used -- heard that used with respect to it.

Q. The MPEG -- well strike that.

MPEG-1 defines a minimum frame

11:12 rate, doesn't it?

MR. SHENG: Objection, form.

A. I'd have to look at the MPEG standard.

(Exhibit 1019, Bamba - Audio was

11:13 previously marked for identification.)

Q. Hand you what's previously been marked exhibit 1019.

And you recall that we were in

11:14 the middle of your paragraph 34 of your 1028 declaration and you had cited to an exhibit 1019.

Do you recall that?

A. Yes.

11:14 Q. And this is that exhibit 1019

H. HOUGH - 11.12.24

that you cited to?

A. Yes.

Q. If you stay on the first page

11:14 labeled 269, in the right column, do you

see the last paragraph there starred

with the word's today's computer-network

infrastructures?

A. Yes.

11:14 Q. The second sentence there says,

streaming media requires that data be

transmitted from a server to a client at

a sustained bit rate that is high enough

to maintain continuous and smooth play

11:14 back at the receiving client station.

Do you see that?

A. Yes.

Q. You don't directly address or

dispute this sentence in your

11:15 declaration, do you?

A. I don't remember every word of my

declaration.

Q. You don't recall, sitting here

today, addressing that sentence?

11:15 A. Do you want me to look through my

H. HOUGH - 11.12.24

declaration to all references to exhibit 1019?

Q. If you feel you have to.

11:16 And I'll just interrupt you there, doctor. If this is going to be a page by page turning, I'll just reask the question.

Sitting here today, you don't

11:16 recall addressing this in your declaration?

A. Yes, I mean I don't remember every word of everything I've written. I couldn't say one way or the other

11:16 right now.

Q. If you turn to paragraph 39 of your 1028 declaration.

A. Sorry, where again, please?

Q. Paragraph 39.

11:17 A. Okay.

Q. And there you're addressing a figure that you directed counsel to create. You see that?

A. Yes.

11:17 Q. And that figure is on page 20 of

H. HOUGH - 11.12.24

your declaration?

A. Yes.

Q. And you state that your figure on

11:17 page 20 is an example of the embodiment

that is described in Ogdon and recited

in claim 6, 9, and 20 of Ogdon, correct?

A. Yes.

Q. Can you pull up Ogdon reference

11:18 simultaneously with the figure. If you

can't, I'll ask you to go to claim 6.

A. Okay.

Q. Do you see in the first paragraph

-- sorry, the second paragraph of claim

11:18 6 under A it says, said first sub

collection? You see that?

A. Yes.

Q. You don't identify any sub

collections in this figure on page 20,

11:19 correct?

MR. SHENG: Objection, form.

A. If I don't here it's because this

is really a rebuttal point. And I will

refer you back to my original

11:20 declaration. Wait, I don't remember if

H. HOUGH - 11.12.24

claim 6 is part of it. But if it's with respect to addressing the claim terms for unpatentability issues, I would have

11:20 discussed all the required claim elements of the challenged claims in my opening declaration. But again, this is really a rebuttal point to specific issues that Dr. Jeffay raised.

11:20 Q. So you don't address that sub collection aspect of claim 6 in this figure, correct?

MR. SHENG: Objection, form.

A. I'm just looking back at my

11:21 original declaration. I don't appear to be challenging -- I don't see claim 6 as part of any of the grounds in my quick review right here right now.

So again, this is a rebuttal

11:21 point to Dr. Jeffay's points that he's raised about multiple versions of the same video presentation and I'm pointing out here that claim -- I'm focusing on different things that are mentioned in

11:22 claim 6 including reduced motion video

H. HOUGH - 11.12.24

and later I think.

Well, my declaration is what it is.

11:22 So I'm not using every word of claim 6 in my discussion here, but I'm using some words that are in claim 6.

Q. If we turn to paragraph 58 of your supplemental declaration.

11:23 A. Okay.

Q. And here you're addressing the Ogdon Allen combination, correct?

A. Sure, at a high level. But again, these are rebuttal points.

11:23 Q. You say a POSITA would have been motivated to modify Ogdon based on Allen to encode the video presentation into multiple quality levels. You see that?

A. Yes.

11:23 Q. Now flipping back to page 20, it's your opinion that Ogdon teaches a video encoded at at least two quality levels, right?

A. I mean that section is directed

11:24 to a different point than that section

H. HOUGH - 11.12.24

is.

Q. Well in your figure on page 20, you have a green row and a yellow row below it, correct?

A. Yes.

Q. And it's your opinion that the green row represents higher transmission rate segments, correct?

A. For that section where I'm discussing really the corresponding segments concept and rebutting Dr. Jeffay and patent owner's contentions about that.

Q. And the yellow row represents lower transmission rate segments, correct?

A. That's how I labeled it and that's how this figure is labeled.

Q. And then if you turn back to page 35, you say -- sorry, on page 34 in that paragraph 58 you say a POSITA would have been motivated to modify Ogden based on Allen to encode the video presentation into multiple quality levels. Correct?

H. HOUGH - 11.12.24

A. Yes, I say that.

Q. You don't specify here which video presentation version from your page 20 illustration that you're proposing to encode into multiple quality levels in the Allen combination, do you?

MR. SHENG: Objection, form.

11:26 A. I'm not sure why I need to refer back to a different analysis for this. I mean this is a section about -- first of all, I believe Ogdon already teaches all limitations that Dr. Jeffay and patent owner allege are missing.

But with respect to Allen, this is -- and I believe I've disclosed that in my original declaration as to why Ogdon anticipates this. But Allen also teaches this.

So now Allen, in combination with Ogdon, is rendering obvious the challenged claims as I've discussed here. And this is with respect to specific bit rates that Allen encodes

H. HOUGH - 11.12.24

the same segment of video into.

And so, that's this discussion here. This is a different rebuttal point.

11:27

Q. Is it a good time to take a break for you?

A. Sure.

MR. WILSON: Let's go off the record.

11:27

(A recess was had.)

MR. WILSON: Go back on the record.

Q. Dr. Houh, if you turn back to your exhibit 1028 declaration, paragraph 8.

11:37

A. Sorry, what paragraph?

Q. Paragraph 8. And this begins a section your understanding of legal principles, correct?

11:37

A. Yes.

Q. In paragraph 10 you say secondary considerations may be probative evidence of non-obviousness.

Do you see that?

11:38

H. HOUGH - 11.12.24

A. Yes.

Q. But you'd agree that if evidence of secondary considerations is presented, then it must be addressed as part of an obviousness analysis, correct?

MR. SHENG: Objection, calls for a legal conclusion.

A. I don't know what the requirements are. But I understand that the patent owner has raised secondary considerations, so I have provided some opinions here.

Q. But you've previously testified to your understanding that secondary considerations evidence must be addressed, haven't you?

MR. SHENG: Objection, form.

A. I might have but I don't remember what the law -- what I might have said. But I'm not a lawyer. I just -- excuse me.

I don't know what the requirements are. But I have addressed

H. HOUGH - 11.12.24

secondary considerations in this supplemental declaration.

Q. I'll hand you what I'll ask to be marked as Deposition Exhibit 4.

(Exhibit 4, declaration of Henry H. Houh, US Patent No. 7,574,725 was marked for identification.)

Q. Do you -- take a quick flip through and let me know if you recognize this document.

A. Yes, I do.

Q. And you recognize this as a declaration that you submitted in support of petition for inter partes review of U.S. Patent Number 7,574,725, correct?

A. Yes.

Q. And it's marked exhibit 1002, correct?

A. In that other case.

Q. Correct, yes.

A. Yes.

Q. Exhibit 1002 in the IPR2024-00736, correct?

H. HOUGH - 11.12.24

A. Yes.

Q. If you go to paragraph 32, you see you stated, I understand that an

11:42 obviousness analysis must consider, and then under bullet 4 and just before bullet 4 there's an and, bullet 4, secondary considerations, if any, of non-obviousness. You see that?

11:42 A. Yes.

Q. Back to your 1028 declaration, if you turn to paragraph 70. And here you state that the Move player includes a critical unclaimed feature, correct?

11:43 A. Yes.

Q. And that critical unclaimed feature is using multiple parallel TCP connections, in your opinion, correct?

A. That's what I say here.

11:43 Q. Can you pull up your '555 patent, exhibit 1001, '555 patent.

A. Okay.

Q. And turn to claim 4. Do you see in the second paragraph under claim 4 it

11:43 recites a plurality of web servers? You

H. HOUGH - 11.12.24

see that?

A. Yes.

Q. And each web server is configured

11:44 to receive at least one streamlet

request over one or more Internet

connections from one or more end user

stations. Do you see that?

A. Yes.

11:44 Q. And you understand the language

one or more refers to the instance where

there can be one instance of an element

or more than one instance of an element?

A. Yes.

11:44 Q. So this claim 4 covers the

scenario where a plurality of web

servers receives streamlet requests over

multiple Internet connections from a

single end user station, correct?

11:44 MR. SHENG: Objection, form.

A. Well it uses the same language

with respect to Internet connection, so

it's saying one or more Internet

connections from one or more end user

11:45 stations. So I don't think it's saying

H. HOUGH - 11.12.24

exactly what -- you used different language.

Q. You disagree that this claim

11:45 covers more than one Internet connection from one end user station?

MR. SHENG: Objection, form.

A. I mean I don't see why this is teaching multiple parallel TCP

11:46 connections for requesting stream lets in parallel which is what Move said their secret was.

Q. But the claim recites, or at least covers, more than one Internet

11:46 connection from one end user station, correct?

MR. SHENG: Objection, form.

A. It requires, it says receive at least one streamlet request over one or

11:46 more Internet connections from the one or more end user stations to retrieve the first streamlet, storing a portion of the video, and it goes on.

Q. Can you turn to claim 10 of the

11:47 same patent. Do you see it recites, in

H. HOUGH - 11.12.24

the third indented paragraph, a digital processing apparatus memory device comprising nontransitory machine readable instructions that, when executed, cause the processor to establish one or more network connections between the client module and the server; do you see that?

11:47 A. Yes.

Q. So here the claims expressly contemplate one, or alternatively more than one, network connections, correct?

A. Well, it says what it says. Establish one or more network connections between the client module and the server.

Q. So you don't dispute that the claim covers more than one network connection between the client module and the server?

MR. SHENG: Objection, form.

A. I mean it says what it says, but it's referring to a server which I also understand could be one or more. And

H. HOUGH - 11.12.24

then it refers to the client module which I don't find it. I'm not seeing right now the antecedent. But again if

11:49 it was a client module that would be one or more also.

Q. Well it doesn't exclude more than one network connection between one client module, right?

11:50 MR. SHENG: Objection, form.

A. I don't understand your question.

Q. Does claim 10 of the '555 patent which recites establish one or more network connections between the client

11:50 module and the server, that claim language does not exclude the scenario in which more than one network connection is established between the client module and the server, correct?

11:50 MR. SHENG: Objection, form.

A. So when I did my analysis originally for this claim element, if you look back at my original declaration, exhibit 1003, I'm

11:51 discussing it with respect to Ogdon

H. HOUGH - 11.12.24

teaching at least one connection is necessary for the client -- sorry, it's page 58, paragraph 101. At least one
11:51 connection is necessary for the client module to retrieve elements from the web servers.

So I'm not sure that I was considering the case in which you're
11:52 asking about right now because Ogdon is teaching one, at least one connection. And that's, that's all that's -- you know, that falls within teaching what claim 10 is claiming.

11:52 So that's the analysis that I did with respect to this element which was how Ogdon taught it and, and it just, it just requires at least one connection.

Q. So setting aside your prior
11:54 analysis, sitting here today, you're not able to state one way or the other whether claim 10 of the '555 patent which recites establish one or more network connections between the client
11:54 module and the server, that that claim

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 89
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

H. HOUGH - 11.12.24

language does not exclude the scenario in which more than one network connection is established between the

11:55 client module and the server, correct?

MR. SHENG: Objection, form.

A. I mean I think if I had to consider a case where that was, what a reference said that didn't just have

11:55 one, then I might have considered it before now. But it's not that I can't. It's just that this hypothetical hadn't arisen until now. And I'd have to -- the way you're asking it. Because the

11:55 analysis I did do was with respect to what Ogdon did teach which was there was at least one connection which clearly disclosed this element and taught, taught this element.

11:56 Q. Dr. Houh, we talked briefly about Mr. Ericson at the beginning of this deposition; do you recall that?

A. Yes.

Q. And you're aware that Mr. Ericson

11:56 was subject to cross examination in this

proceeding?

A. I generally understand that's part of a deposition.

11:56 Q. So you understand he sat for a deposition, correct?

A. That's what I recall, if my memory is correct.

Q. I'll hand you what I'll ask to be

11:57 marked exhibit 5.

MR. SHENG: Let me pause you there. I don't know, I want to be respectful of your line of questioning. I talked to Dr. Houh at

11:57 the last break. He said he wanted to stop around 12:10 for lunch. When 12:10 hits I don't want you to be mid-question with this module. So I defer to you if you want to go to

11:57 12:10 or you want to take a break now before you hand him the exhibit.

MR. WILSON: Yes, I appreciate that. I feel like we can make a little more progress.

11:58 MR. SHENG: Okay, great.

H. HOUGH - 11.12.24

MR. WILSON: Let's go ahead and mark the exhibit if we can.

(Exhibit 5, deposition transcript of David R. Ericson was marked for identification.)

Q. If that's okay, with Dr. Houh, of course.

A. Sure.

11:58 MR. SHENG: What exhibit number is this?

MR. WILSON: This should be 5.

Q. I'll represent to you that this is a deposition of Dave Ericson taken in these proceedings. Do you see the case numbers listed on the front cover?

MR. SHENG: I'm going to lodge an objection here. Foundation hasn't been laid that the witness has seen this document or ever considered it in any of his, his reports. So to the extent counsel is trying to introduce this as an exhibit through Dr. Houh, I state my objection on the record.

H. HOUGH - 11.12.24

Q. If you turn to page 130. About line 12, do you see there's a question lodged, the reference is an Emmy. Do you see that?

11:59

A. Yes, I do.

MR. SHENG: Objection, scope.

Q. An Emmy that Sling received, correct?

12:00

A. That's what it says there.

MR. SHENG: And, Andrew, if I can get a running objection with regard to every question regarding this document. Happy to object each time, but defer to you. Running objection okay?

12:00

MR. WILSON: Yes, standing, yes.

MR. SHENG: Okay, very good.

Q. And if you follow that down, that thread of questioning down to the middle of page 131 of the transcript, you see that Mr. Ericson says the Emmy was awarded in 2020, correct? And that's at line 16 of 131.

12:00

A. I see that.

H. HOUGH - 11.12.24

Q. You don't address this 2020 Emmy that was awarded to Sling in any of your declarations, correct?

12:01 MR. SHENG: Objection, form.

A. I don't remember every word, but I don't remember if I did, offhand.

Q. If you continue following the transcript down to page 132, at about

12:01 line 4, do you see that Mr. Ericson in an answer begins describing an Emmy award that ABC won? Do you see that?

A. I see that.

Q. And do you see he says the Emmy

12:02 was for ABC.com that was obviously using Move's technology?

Do you see that?

A. Yes. I don't see any nexus to the novel parts of the challenged claims

12:02 of all these, but I see what you're pointing to.

Q. Turn to page 170, line 19. Do you see again Mr. Ericson is discussing Emmy awards?

12:02 A. Yes.

H. HOUGH - 11.12.24

MR. SHENG: I'm going to object here, counsel. It seems like you're just having Dr. Houh read or just confirm that this transcript says certain things. The document speaks for itself.

12:03

If that's what we're going to do here, just have Dr. Houh confirm that this transcript says certain things, I'm going to shut this down. So I'll give you a little bit more leeway. But, you know, again the foundation hasn't been laid that Dr. Houh considered this document. Quite frankly, it's outside the scope and irrelevant. That's my objection.

12:03

Q. Do you see an exhibit 2 is introduced at line 22 of this page 170?

12:03

A. Yes.

Q. I'm handing what I will ask to be marked as Deposition Exhibit 6.

(Exhibit 6, document entitled Awards Nominees and Winners was marked for identification.)

12:05

H. HOUGH - 11.12.24

Q. And you haven't seen this before, correct?

A. I'm not sure.

12:05 Q. Do you see it says exhibit 2 Ericson at a stamp at the bottom?

A. Yes.

MR. SHENG: And I'm going to lodge an objection based on the fact

12:05 foundation hasn't been established that Dr. Houh considered this document or cited it frankly in his declaration. This is wildly inappropriate, Andrew. So go ahead,

12:06 ask your questions. But I mean that's my objection.

Q. Let me just ask, you do not cite to this exhibit 2 -- I'm sorry, excuse me. Strike that.

12:06 Let me just confirm you do not cite to this Deposition Exhibit 6 or Deposition Exhibit 5 in your declarations, correct?

A. Yes, I mean I don't, I don't

12:06 think that I do.

H. HOUGH - 11.12.24

Q. And you don't address any of the Emmy awards described in these documents, correct?

12:06 A. Well, I do address the fact there can't be a nexus. So generally whatever these documents are can't, you know, can't, you know, be tied to any nexus because there isn't one.

12:06 Q. Regarding this Emmy award that's described on page 170, I believe this is, of the transcript, Deposition Exhibit 5, you don't dispute that ABC worked with Move to use Move's

12:07 technology and ABC's streaming, correct?

MR. SHENG: Objection, scope, lacks foundation, form.

A. I mean what you're showing me here might be the first. I'm -- I don't

12:07 know if I was aware of that beforehand.

Q. I see we're at about 12:10, it would be a good time for a break?

MR. SHENG: Go ahead, let's go for five more minutes. Finish your

12:08 line of questioning on this.

H. HOUGH - 11.12.24

Q. Would you turn to -- would you turn to paragraph 21 of your exhibit 1003, your initial declaration?

12:09 MR. SHENG: If we're moving to a different topic then we can go ahead and grab lunch, if that's what we're doing.

MR. WILSON: It's certainly

12:09 related.

MR. SHENG: Okay.

MR. WILSON: But I think we can grab lunch.

MR. SHENG: Fair enough, let's

12:09 grab lunch.

MR. WILSON: Go off the record.

(Luncheon recess at 12:09 p.m.)

H. HOUGH - 11.12.24

A F T E R N O O N S E S S I O N

(12:54 p.m.)

MR. WILSON: Let's go back on the record.

HENRY H. HOUH, resumed, having been previously duly sworn, was examined and testified further, as follows:

CONTINUED EXAMINATION

BY MR. WILSON:

Q. Dr. Houh, did you talk to anyone during the break? Did you talk to your counsel about the substance of your testimony?

A. No.

Q. Turn to paragraph 21 of your exhibit 1003, your first declaration.

A. Okay.

Q. And you see in paragraph 21 you provide a table of materials. Do you see that?

A. Yes.

Q. And these are materials you reviewed and considered in preparing the

H. HOUGH - 11.12.24

exhibit 1003 declaration, correct?

A. Yes.

Q. And in the row for exhibit 1009

12:54 do you see that refers to an ITC

investigation initial determination?

A. Yes.

Q. And you reviewed that, correct?

A. Yes, certain portions of it.

12:55 Q. And you knew that the ITC, ALJ,

the administrative law judge, found

evidence of objective indicia, correct?

MR. SHENG: Objection to form.

A. I don't remember everything I

12:55 read.

Q. Well you didn't address any of

the ITC initial determinations, comments

or findings regarding objective indicia

in your first declaration, correct?

12:55 A. Yes, I believe that's correct in

general.

Q. Can you turn to paragraph 159 of

Dr. Jeffay's exhibit 2006 declaration.

A. Sorry, what paragraph?

12:56 Q. Paragraph 159. It's on page 75.

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 100
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

H. HOUGH - 11.12.24

A. Okay.

Q. And you see here Dr. Jeffay is expressing, referencing and discussing the objective evidence of non-obviousness identified by the ITC, do you see that?

A. I see some of those words as part of the heading.

12:56 Q. Do you see in paragraph 160 there's a long block quote there? Do you see that?

A. Yes.

Q. And at the bottom of that there's a cite to that exhibit 1009, the initial determination; do you see that?

A. Yes.

Q. Isn't it true that you still don't address the ITC's findings regarding objective indicia in your supplemental declaration responding to Dr. Jeffay's declaration?

MR. SHENG: Objection, form.

A. I mean I discuss generally how there can't be a nexus and without a

H. HOUGH - 11.12.24

nexus my understanding is there can't be any secondary considerations that are tied to such a nexus. And so generally
12:57 that's what I address. It may not relate specifically to these, but I think they generally go to why there's no nexus because everything was -- well I'll refer to my report as to what I
12:57 say, but what was known and then, therefore, there can't be any secondary considerations tied to such a nexus.

Q. If you refer to the exhibit 2006, the Jeffay declaration, to paragraph
12:58 207. Do you have that paragraph?

A. Now I do.

Q. Do you see Dr. Jeffay is addressing ABC's use of Move's streaming player?

12:58 A. Yes. Wait a second. Well I think -- I don't see those exact words but I see ABC and Move in that paragraph.

Q. And the, towards the -- in the
12:58 second line there's a quote in this

H. HOUGH - 11.12.24

paragraph 207 of Jeffay's 2006 declaration, exhibit 2006, it says the full screen version offered by Move was
12:58 incredibly crisp and clean compared to Flash and only had minimal buffering at the beginning of the stream which he hoped would lead to a better viewing experience for users which in turn
12:59 should boost the effectiveness of the commercials that advertising are placing within the streams.

Do you see that?

A. Yes.

12:59 Q. And it continues discussing about Move's type of streaming, do you see that?

A. Yes.

Q. But you don't address Dr.
12:59 Jeffay's testimony regarding ABC's news of Move's player in your supplemental declaration, correct?

A. I think generally I do because again there's no tie to any nexus here
12:59 that I see. And I generally discuss why

H. HOUGH - 11.12.24

I understand that secondary considerations must be tied to a nexus and that there couldn't be a nexus, and
12:59 I lay out the reasons why in my supplemental declaration.

Q. But you don't specifically address ABC's use of Move's player, correct?

01:00 A. I don't think I specifically address ABC's use of the Move player, except that, generally speaking, I do discuss why there cannot be any nexus because nothing claimed that was already
01:00 not -- nothing was claimed that was already not in the prior art -- I'm not sure if I said that exactly right. But if you look at paragraph 75 and what follows, that's, that's what I'm
01:00 referring to. And that applies to any, any raised secondary considerations, really.

Q. And you were never provided the Ericson deposition transcript to
01:00 consider for your opinion of secondary

H. HOUGH - 11.12.24

01:01 considerations, were you?

A. I don't remember. I mean --

Q. You don't --

01:01 A. -- I don't know if I cited to it from memory.

Q. You were never told that the Move powered ABC player received an Emmy in 2006 based on Move's technology?

01:01 MR. SHENG: Objection, form.

A. I'm not sure I can answer that because I don't remember where I heard that and whether it might have involved privileged communications. I just don't

01:01 remember where I first heard that.

Q. So you did hear that ABC's Move player received an Emmy in 2006?

MR. SHENG: The Doctor raised a privileged question and I'd like to

01:02 discuss with him outside why he thinks that it might be privileged discussion. So if we can go off the record for a few minutes.

Q. If you feel like you can answer

01:02 without divulging privileged information

H. HOUGH - 11.12.24

please do.

MR. SHENG: You can answer that question.

01:02 A. I don't remember how I heard that.

Q. But you did at least hear it, correct?

A. I don't know how to answer that

01:02 right now.

Q. Why can't you answer that right now?

A. Because I don't remember the circumstances under which I heard it.

01:02 Q. Well then it's difficult to understand how the mere fact of becoming aware of a fact in a case would be privileged.

MR. SHENG: Well I mean if it was

01:03 from counsel it's certain privileged. I mean he didn't rely on that fact for -- well I don't know, the foundation hasn't been established that he relied on, you know, that

01:03 communication for his opinions. So

H. HOUGH - 11.12.24

certainly if it came from an attorney it would be privileged.

Q. So you were aware of it but

01:03 didn't address it?

MR. SHENG: Objection, form.

A. I don't know how to answer that question. And I don't remember the exact timing either, so.

01:04 But as I said, I generally addressed all such issues about secondary considerations because there can't be a nexus, as I've laid out in my supplemental declaration.

01:04 Q. And I think this has been established, but your opinion on nexus does not consider the Emmy award for Move's technology in 2006, correct?

MR. SHENG: Objection, form.

01:04 A. I think it certainly applies because there couldn't be a nexus, and that's my opinion. And so any such, any such secondary considerations couldn't be tied to a nexus.

01:04 MR. WILSON: Pass the witness.

H. HOUGH - 11.12.24

MR. SHENG: We'll take 15 minutes, come back.

(A recess was had.)

01:32 EXAMINATION BY MR. SHENG:

Q. Dr. Houh, do you recall counsel for Dish asking you questions whether you had any opinion that Ogdon anticipates claims 18 and 19 of the '555 patent in your supplemental declaration?

A. Yes.

Q. Okay. Let's turn, if you could pull out your supplemental declaration, that's exhibit 1028. And I'm paraphrasing and I know I won't get this word for word correctly, but I recall counsel asking you whether or not, or showing you your original declaration that -- well, let's strike that.

Let me start over.

So, Dr. Houh, you recall counsel asking you whether or not you addressed anticipation of claims 18 and 19 of the '555 patent in your supplemental declaration?

H. HOUGH - 11.12.24

A. Yes, I think so.

Q. Can you turn to page 82 of your '555 declaration which was marked as

01:33 exhibit 1028. Could you read paragraph 82 to yourself.

A. To myself?

Q. Yes.

A. Okay. Okay.

01:34 Q. Does paragraph 82 refresh your recollection as to whether or not you considered anticipation of claims 18 and 19 in the, your declaration submitted for the '55 patent?

01:34 MR. WILSON: Objection, leading.

A. Yes, it does.

Q. Doctor, can you pull up Dr. Houh exhibit number 1.

A. Got it.

01:35 Q. And I believe opposing counsel asked if you had ever seen this document. Have you seen this document prior to today's description?

A. I don't, I don't recall it before

01:35 today.

H. HOUGH - 11.12.24

Q. And do you recall opposing counsel asking you questions about this document using the word PowerPoint slides?

01:35

A. Yes.

Q. I'm going to hand you -- what exhibit number are we?

THE REPORTER: 7.

01:35 MR. SHENG: I'm going to mark this as Dr. Houh exhibit number 7.

(Exhibit 7, MShow.com press release, November 21, 2000 was marked for identification.)

01:36 Q. Dr. Houh, I'll represent to you that this is a press release from M.Show.com. Do you have any reason to dispute that?

MR. WILSON: Objection, leading. Object to scope.

01:36

A. I don't think I'd have any reason to dispute it.

Q. Okay. Can you please turn to, I'm looking at the first paragraph, the first paragraph, the full paragraph

01:36

H. HOUGH - 11.12.24

which begins with Highlands Ranch. Do you see that?

A. Yes.

01:36 Q. The very last sentence, I'm going to read this into the record. M.Show.com enables instructor-led online training by integrating streaming video and audio with rich media content to

01:36 create a synchronous, highly interactive delivery method.

Do you see that?

A. Yes.

Q. Does that support your opinions

01:36 regarding Ogdon?

MR. WILSON: Objection, leading, scope.

A. Yes, it does. And I want to point out that in exhibit 1 also there's

01:36 a consistent statement that's consistent with that if you look at the third full paragraph. It talks about it's part of a mission to deliver voice, video and data services with the simplicity of a

01:37 regular phone call.

H. HOUGH - 11.12.24

Q. Great. And then we're still on, Dr. Houh, exhibit 7. If you could turn to the -- go ahead.

01:37 A. Yes. That's good.

Q. If you could turn to the third full paragraph, the paragraph starting with the M.Show service. Do you see that?

01:37 A. Yes, I think so.

Q. I'm going to read the second sentence of that paragraph into the record. M.Show.com provides integration and synchronization of IP video and

01:37 audio streaming, telephony and graphics, plus extensive content services to ensure high quality presentations.

Do you see that?

MR. WILSON: Objection, leading,

01:37 scope.

A. I do see it.

Q. What does that sentence mean to you?

A. I think that means that they're

01:37 talking about streaming video as well.

H. HOUGH - 11.12.24

MR. SHENG: Mark this as Dr. Houh exhibit 8.

(Exhibit 8, press release entitled M.Show.com and Akamai in Strategic Alliance was marked for identification.)

01:37 MR. WILSON: Object to this document as exceeding the scope.

01:38 Q. And, Dr. Houh, I'll represent to you that this is a press release entitled M.Show.com and Akamai in Strategic Alliance.

Do you have any reason to dispute

01:38 that?

MR. WILSON: Objection, leading.

A. No.

Q. Let's go to the third full paragraph, begins with our relationship

01:38 with Akamai. Do you see that?

MR. WILSON: Objection, leading.

A. Yes.

Q. The second sentence of that paragraph, I'll read it into the record.

01:38 M.Show.com recognizes Akamai's

H. HOUGH - 11.12.24

large-scale edge content delivery network as key to ensuring high-quality delivery of rich media on the Internet, especially streaming audio and video. Do you see that?

A. Yes.

MR. WILSON: Objection, leading, scope.

01:38 A. Yes.

Q. What does that sentence mean to you, doctor?

A. It means M.Show is talking about streaming video as well.

01:39 Q. If we can go down to the two paragraphs below that, the sentence, the paragraph beginning M.Show integrates IP video. Do you see that?

MR. WILSON: Objection, leading.

01:39 A. Yes.

Q. I'm going to read that into the record. M.Show integrates IP video and audio streaming, telephony and rich media with a patented pre-caching technology, Togetherware, that

H. HOUGH - 11.12.24

synchronizes audio and video regardless of each individual end user's bandwidth. Do you see that?

01:39 MR. WILSON: Objection, leading.

A. Yes.

Q. Does that support your opinions with respect to Ogdon?

A. Yes.

01:39 MR. WILSON: Objection, leading.

A. Because it is talking about IP video streaming.

Q. Okay, you can put those documents away. Could you pull up, Hough exhibit 2, this is the declaration you submitted in the Echelon Peloton IPR.

A. Okay.

Q. Do you recall opposing counsel asking you about this document?

01:40 A. Yes.

Q. And opposing counsel asked you questions about paragraph 108. Let's turn to paragraph 108.

A. Okay.

01:40 Q. Do you recall opposing counsel

H. HOUGH - 11.12.24

asking you questions about paragraph 108?

A. Yes.

01:40 Q. Let's backup. Let's turn to paragraph 103 first, or page 45. Do you see that -- would you agree or -- strike that.

Paragraph 108 is under heading A, 01:40 do you see that?

A. Yes.

Q. What's heading A?

A. Heading A is an overview of a reference that was raised by Echelon in 01:40 this IPR proceeding which I was on the patent owner side for. And Garcia was one of the references raised as in one of the grounds.

Q. So under subheading A there's 01:41 paragraphs 103 to 108. See that?

A. Yes.

Q. Okay. So what was the purposes of paragraphs 103 to 108?

MR. WILSON: Objection, leading.

01:41 A. It's describing what Garcia's

H. HOUGH - 11.12.24

saying.

Q. So let's go to paragraph 108.

I'll read the first part of paragraph

01:41 108 into the record. Garcia explains

that its video streaming was made

practical and cost effective by the

declining cost and increasing

availability and reliability of video

01:41 streaming over the Internet.

Do you see that?

MR. WILSON: Objection, leading.

A. Yes.

Q. What's your understanding of

01:41 paragraph -- of this sentence here in

paragraph 108?

A. That this is the patentee

Garcia's view of video streaming, what

was making video streaming practical.

01:41 Q. And then still in paragraph 108

there's a image of text from Garcia. Do

you see that?

A. Yes.

Q. Okay. And opposing counsel

01:42 referred you to the sentence there that

H. HOUGH - 11.12.24

includes some highlighting. Do you recall that?

A. Yes.

01:42 Q. Did you include that highlighting or was that --

A. I don't recall where that highlighting came from, but I don't, I don't have recollection of that.

01:42 Q. And so that sentence that counsel referred to you -- referred you to, I'm going to read it into the record.

It says, until recent years the technology of sending live video feeds

01:42 through the Internet was too costly and not yet reliable.

You see that?

A. Yes.

MR. WILSON: Objection, leading.

01:42 Q. And I think opposing counsel represented to you that the priority date for Garcia is 2010. Do you remember that?

A. Yes.

01:42 Q. With the understanding that

H. HOUGH - 11.12.24

Garcia's priority date was 2010, do you agree with the statement that I just read into the report?

01:42 MR. WILSON: Objection, leading.

A. No, I wouldn't agree with it.

Q. Why not?

A. Well there was a lot of technology available well before that

01:43 time frame. If you look at things like RealMedia, they were doing streaming video well before this time frame. And I had, as I mentioned earlier, I had broadband access at my home starting in

01:43 around 2000, which is well before the time frame of 2010.

Q. Thank you, doctor. You can put that away.

Doctor, can you take out your

01:43 supplemental declaration, again it's exhibit 1028, I believe.

A. Okay.

Q. And then if you can pull out the Ogdon patent as well at the same time.

01:44 A. Okay.

H. HOUGH - 11.12.24

Q. And counsel asked you, opposing counsel asked you about the figure on page 20. If you could turn to that. Page 20 of your supplemental declaration. And opposing counsel asked you whether or not this figure reflected sub collections or something like that. Do you remember that line of

01:44 questioning?

A. Yes, generally.

Q. Could you turn to Ogdon column 2, line 39 to 43. Read that to yourself. Let me know when you're done.

01:45 A. Okay.

Q. Does Ogdon column 2 lines 39 to 43 refresh your recollection as to whether or not the figure on page 20 of your supplemental declaration reflects

01:45 sub collection?

MR. WILSON: Objection, leading.

A. It does. That section talks about how sub collections can simply have one or more segments, and figure 20

01:45 shows one segment. So I didn't use the

H. HOUGH - 11.12.24

word sub collection around this section, but certainly Ogdon is teaching that just one segment is a sub collection.

01:45 Q. Thank you. You can put that away.

Could you pull out exhibit 1031, that's the thick one, the realsystem G2 production guide.

01:45 A. Okay.

Q. Can you turn to page 56 of that document. Let me ask you this first. Do you recall opposing counsel asking you about the RealPix functionality tool

01:46 that's discussed in this document?

A. Yes.

Q. What is your understanding of the RealPix tool?

A. My understanding is the RealPix

01:46 tool is a tool that can take images and then create a slide show from the images.

Q. Now is that, do you rely on the RealPix tool in your opinions with

01:46 respect to Ogdon?

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 121
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

H. HOUGH - 11.12.24

A. No, I don't think I was.

Q. What do you rely on? Well --

A. I was relying on the Real

01:46 Encoding tool which I cited which talks

about converting a video into like a

series of, every second taking snapshot

and turning that into a slide show

format or something like that. Actually

01:46 the wording is actually in my

supplemental declaration.

Q. Why don't I turn you to the page

of the exhibit. Can you turn to page 56

of exhibit 1031.

01:47 A. Okay. I'm there.

Q. Okay. And if you look at the top

portion of the document there's the word

Tip.

A. Yes.

01:47 Q. Is that the portion of exhibit

1031 that you are relying on?

MR. WILSON: Objection, leading.

A. It is, and actually it's cited

and quoted in my supplemental

01:47 declaration, at least part of this

H. HOUGH - 11.12.24

segment is.

MR. SHENG: No further questions.

MR. WILSON: Five-minute break.

01:47 Off the record.

(A recess was had.)

MR. WILSON: Nothing further.

MR. SHENG: Oh, very good. We will order -- what's your regular

01:55 turnaround?

THE REPORTER: Eight to 10 business days.

(Continued on next page for purpose of jurat.)

MR. SHENG: I suspect you will want it faster than that and I will piggyback off your order.

01:55 MR. WILSON: I think we want rush and rough.

THE REPORTER: Do you want the same?

MR. SHENG: Sure.

01:55 (Time noted:1:55 p.m.)

_____

HENRY H. HOUH

_____

Subscribed and sworn to
before me this _____
day of _____,2024.

_____

Notary Public

E X H I B I T S

NUMBER	DESCRIPTION	PAGE
EXHIBIT 1	1999 article "It's MShow Time"	22
EXHIBIT 2	Document entitled Peloton Interactive, Inc	33
EXHIBIT 3	Stones Rolling on the Superhighway, Baltimore Sun	43
EXHIBIT 4	Declaration of Henry H. Houh, US Patent No. 7,574,725	83
EXHIBIT 5	Deposition transcript of David R. Ericson	92
EXHIBIT 6	Document entitled Awards Nominees and Winners	95
EXHIBIT 7	MShow.com press release, November 21, 2000	110
EXHIBIT 8	Press release entitled M.Show.com and Akamai in Strategic Alliance	113

PREVIOUSLY MARKED EXHIBITS

EXHIBIT 1003	Initial declaration of Dr. Houh submitted in case IPR2024-00146	9
EXHIBIT 1028	Supplemental declaration that Dr. Houh submitted in that same case, IPR2024-00146	9
EXHIBIT 2006	Exhibit 2006 that Dr. Houh cites in paragraph 17 of his supplemental declaration	25
EXHIBIT 1018	New York Times article, February 8, 1995	41
EXHIBIT 1001	US Patents '555, '798, '138, '554, '680	50
EXHIBIT 1004	Ogdon patent, 6,161,137	55
EXHIBIT 1031	Realsystem G2	69
EXHIBIT 1019	Bamba - Audio	73

I N D E X

WITNESS	EXAMINATION BY	PAGE
Dr. Houh		
	Mr. Wilson	4
	Mr. Sheng	108

REQUESTS

Page

None

CERTIFICATION

STATE OF NEW YORK)
: ss.
COUNTY OF NEW YORK)

I, MARK RICHMAN, Certified Shorthand Reporter, Certified Court Reporter, Registered Professional Reporter and Notary Public for and within the State of New York, do hereby certify:

That the witness whose testimony is herein set forth, was duly sworn by me; and that the within transcript is a true record of the testimony given by said witness.

I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of October, 2024.

Mark Richman

_____

MARK RICHMAN, CSR, CRR, RPR, CM

* * *

DEPOSITION ERRATA SHEET

Deposition of: Henry Houh, Ph.D. Date of Deposition: November 12, 2024

Case Name: *Aylo Freesites Ltd. v. Dish Technologies L.L.C.*

Case Number: PTAB Cases IPR2024-00461, IPR2024-00043, IPR2024-00044, IPR2024-00045, IPR2024-00046

Reporter: Mark Richman, CSR, CCR, RPR, CM

Please make all corrections, changes or clarifications to your testimony, showing page and line numbers. If there are no changes, write "none" across this page. Sign and date on the lines provided.

Page No.	Line No.	Change From	Change To	Reason
All	1	HOUGH	HOUH	Transcription error
35	6	claim	claimed	Transcription error
29	8	by --	by a TCP/IP network	Mr. Wilson interrupted and spoke over me
49	18	paragraph phrasing	paraphrasing	Transcription error
59	14	be. They	be -- they	Transcription error
62	9	about	about,	Transcription error
115	14	Hough	Houh	Transcription error

Signature: Henry H. Houh. Date: November 20, 2024

Henry Houh

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$20,000 44:23

0

001 39:3

00461 11:7

1

1 22:4,5,9 49:6 51:14,23 52:5,16 69:15 109:18 111:19

10 81:22 86:24 88:12 89:14,22 123:11

10,469,555 9:10

1001 50:12,14,18 84:21

1001s 52:22

1002 83:19,24

1003 9:11,12 11:14 88:24 98:4 99:18 100:2

1004 55:22 56:2

1009 100:4 101:15

101 89:4

1018 41:18,22,23 42:21 45:25

1019 71:15,21 73:14,18,22,25 75:3

1028 9:24,25 10:13 11:24 12:8,19,24 13:11 15:4 16:23 17:15 19:20 24:5 39:6 47:4 52:24 57:21 67:24 71:13,18 73:21 75:17 81:15 84:11 108:14 109:5 119:21

103 116:6,20,23

1031 69:5,9,12 121:7 122:14,21

108 34:2 35:8,23 36:3 115:22,23 116:3,9,20,23 117:3,5,16,20

11.12.24 4:1 5:1 6:1 7:1 8:1 9:1 10:1 11:1 12:1 13:1 14:1 15:1 16:1 17:1 18:1 19:1 20:1 21:1 22:1 23:1 24:1 25:1 26:1 27:1 28:1 29:1 30:1 31:1 32:1 33:1 34:1 35:1 36:1 37:1 38:1 39:1 40:1 41:1 42:1 43:1 44:1 45:1 46:1 47:1 48:1 49:1 50:1 51:1 52:1 53:1 54:1 55:1 56:1 57:1 58:1 59:1 60:1 61:1 62:1 63:1 64:1 65:1 66:1 67:1 68:1 69:1 70:1 71:1 72:1 73:1 74:1 75:1 76:1 77:1 78:1 79:1 80:1 81:1 82:1 83:1 84:1 85:1 86:1 87:1 88:1 89:1 90:1 91:1 92:1 93:1 94:1 95:1 96:1 97:1 98:1 99:1 100:1 101:1 102:1 103:1 104:1 105:1 106:1 107:1 108:1 109:1 110:1 111:1 112:1 113:1 114:1 115:1 116:1 117:1 118:1 119:1 120:1 121:1 122:1 123:1

12 93:3

12:09 98:17

12:10 91:16,17,20 97:21

12:54 99:3

13 69:23

130 93:2

131 93:21,24

132 94:9

138 50:15

15 108:2

159 100:22,25

16 68:13 71:14,20 93:24

160 101:10

17 24:17 25:6,16,25 26:23

170 94:22 95:19 97:11

18 11:20 39:6 41:10 42:12 50:25 51:24 108:9,23 109:12

19 11:21 94:22 108:9,23 109:13

1990s 68:5

1993 29:22

1994 29:24 30:4 43:23 45:13

1995 41:12,24 42:10

1997 24:20 26:9,16 27:5,13,23 28:20 29:11,16 32:8,15 58:9

1999 22:5,22 68:14

2

2 12:4 33:14,15 44:6,17 54:25 56:6 95:18 96:5,18 115:15 120:12,16

20 75:25 76:5,7,19 78:20 79:3 80:5 120:4,5,18,24

200 43:5 45:3

2000 38:14 110:13 119:15

2002 38:25

2002-001 38:20

2004 24:9,11 26:19 30:13 31:4,16,19,23 32:3,22 33:2,10

2006 25:3,5,11,15,20 27:11 100:23 102:13 103:2,3 105:9,17 107:18

2010 34:20 118:22 119:2,16

2011 34:20

2020 93:23 94:2

2020-01541 38:22

2024 30:9 124:17

2063 18:9

207 102:15 103:2

20th 22:22

21 98:3 99:17,20 110:13

22 25:23 95:19

24 51:24 70:25 71:5 72:17

269 74:5

270 71:21

29 47:5

3

3 12:23 13:9 25:24 27:11,16,20 43:11,12

30 45:18 47:21 49:7 52:24 53:11,24,25 54:2,25 56:6,20 70:25 71:2,5 72:17

31 54:10

32 57:11,20 84:3

34 67:23 71:13,19 73:20 79:21

35 56:21 79:21

39 75:16,19 120:13,16

4

4 83:5,6 84:6,7,23,24 85:15 94:10

40 5:14

43 120:13,17

44 19:20 21:18

45 116:6

5

5 69:15 91:10 92:4,12 96:22 97:13

54 20:18 70:8,18

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 130
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

55 109:14

554 50:15

555 47:24 48:9,11 49:9,12,24 50:14, 22,23 53:3,4 71:19 84:20,21 88:12 89:22 108:9,24 109:4

56 121:11 122:13

58 78:8 79:22 89:4

6

6 15:4 16:4,10 24:6 39:8 41:11 76:7, 11,15 77:2,11,16,25 78:6,7 95:22,23 96:21

6,161,137 55:23

680 50:15 51:13 52:4

7

7 110:9,11,12 112:3

7,574,725 83:7,16

70 84:12

75 100:25 104:18

798 50:15

8

8 41:24 81:16,18 113:3,4

82 109:3,6,10

85 23:16

8th 42:10

9

9 76:7

A

ABC 94:12 97:13 102:22 105:8

ABC's 97:15 102:18 103:20 104:8,11 105:16

ABC.COM 94:15

ability 38:15

access 28:23 38:16 45:2 119:14

accessible 44:9,20

acknowledges 27:21

active 38:16

actual 36:24 37:20 38:7 61:13

adaptive 24:8 51:4 52:6

added 39:3

address 53:9 57:9 74:18 77:10 94:2 97:2,5 100:16 101:19 102:5 103:19 104:8,11 107:5

addressed 13:10 57:18 82:5,18,25 107:11 108:22

addressing 44:12 47:5 53:12 63:7, 20,23,24 64:11 74:24 75:10,21 77:3 78:11 102:18

administrative 100:11

advances 38:11

advertising 103:11

affiliated 56:10

agree 14:15 32:6,13,23 33:4 36:18 37:11 50:22 53:18 82:3 116:7 119:3,6

ahead 92:2 96:14 97:23 98:6 112:4

aids 70:11

airfare 23:25

Akamai 113:5,12,20

Akamai's 113:25

ALJ 100:10

allege 80:15

Allen 12:3 78:12,16 79:24 80:7,16, 19,21,25

Alliance 113:6,13

allowed 29:17,24

alternative 68:8

alternatively 87:12

Amazon 31:11,14

analysis 48:22 57:7 80:11 82:6 84:5 88:21 89:15,20 90:15

ancestors 27:25

and/or 12:3

Andrew 4:13,18 26:2 70:15 93:11 96:14

answers 11:7

antecedent 88:4

anticipated 11:21

anticipates 80:19 108:9

anticipation 12:10,19 108:23 109:12

Apologies 21:7 26:4

apparatus 87:3

apparent 62:18

appearances 4:15

appears 10:8 25:14,20,22 57:22 60:15 61:11 64:2

application 40:23

applies 104:20 107:20

apply 11:8

approximately 68:18

archived 22:25 44:3

archives 46:14

area 71:8

argue 47:7

arguing 64:3

argument 20:21 21:8 47:6,15 57:22 63:16

arguments 48:8 57:14

arisen 90:13

art 104:16

article 22:5,25 41:24 42:6,11 44:4, 13,16 46:7,13

aspect 77:11

assemble 69:24

asserted 52:14

assignee 20:13

assume 24:15

attorney 107:2

attorneys 46:23

audience 56:9

audio 28:8,11 29:8 58:20 59:8,10 61:16 63:13 65:25 73:14 111:9 112:15 114:5,23 115:2

availability 28:25 35:14 36:7 38:12 117:9

award 94:12 97:10 107:17

awarded 93:23 94:3

awards 94:24 95:24 97:3

aware 5:3 9:3 20:11 68:22 90:24 97:20 106:17 107:4

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 131
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

Aylo 4:25

B

back 9:17,18 10:7 15:10 24:5 39:4 43:2 45:22 46:20 71:13 74:15 76:24 77:14 78:20 79:20 80:11 81:12,14 84:11 88:23 99:4 108:3

backup 116:5

Baker 4:19 8:4

Baltimore 43:13,22,23

Bamba 73:14

bandwidth 28:22 68:17 115:3

based 12:10 14:13 15:7 72:2 78:16 79:23 96:9 105:9

basis 20:24 21:12 23:2

bear 21:25

beat 28:10

begin 24:6

beginning 68:3 90:21 103:7 114:17

begins 81:18 94:11 111:2 113:19

behalf 33:23

bit 49:11 50:4 51:10,19 52:10 53:16, 22 55:7 56:18 57:5,18 74:13 80:25 95:12

blackboard 70:12

block 101:11

board 15:16 47:7,18 48:15,20

board's 48:3

boost 103:10

bottom 22:13 39:7 41:11 68:12 96:6 101:14

Botts 4:19 8:4

Bowl 41:15

branding 22:13 43:16

break 46:16,25 81:6 91:15,20 97:22 99:13 123:4

briefly 19:6 50:17 90:20

broadband 38:13 119:14

broadcast 29:12,17 42:16 43:3,4 44:14

broadcasting 23:18

broader 60:3 62:2

buffering 103:6

bullet 84:6,7

business 23:20 123:12

C

cable 29:12

cached 20:2

call 7:7 111:25

called 4:2 7:20 34:4

calls 23:22 40:8 82:8

captured 16:24 28:4

captures 13:8

case 6:8 7:20 9:9,14,20 10:3,10 11:6, 7 12:13,16 13:24 14:4,8,21 17:25 71:19 83:21 89:9 90:8 92:15 106:17

cases 5:9,19,25 6:11 7:3,4,6,10,13, 22 8:15,20 10:14 11:8,10 13:18 17:21 19:4,12

catching 70:2

challenged 12:4 24:11 26:10 27:14 77:6 80:23 94:19

challenging 77:16

chapter 69:15

characterized 72:22

chicken 24:2

choose 68:16

chose 36:20 37:13

circuits 28:7

circumstances 106:14

citation 26:25 34:15 35:22

citations 54:21 56:15,23

cite 25:15,24 35:9 39:8,12 41:18 54:24 55:12 56:6 57:3 64:15 68:23 71:14 96:17,21 101:15

cited 18:13,25 25:21 26:17 35:24 58:19 59:18 60:14 61:22 62:25 64:19 66:10 69:11 73:21 74:2 96:12 105:5 122:5,23

cites 25:6

citing 25:2 27:19 40:19 59:23 65:12 71:21

claim 27:24 35:6 48:11,23 49:6 50:9, 25 51:14 52:4,5,16 53:9,20 54:3 60:19 67:20 76:7,11,14 77:2,3,5,11, 16,23,25 78:6,7 84:23,24 85:15 86:4, 13,24 87:19 88:12,15,22 89:14,22,25

claimed 24:12 104:14,15

claiming 89:14

claims 11:20 12:4,10 47:24 48:10,22 49:9,19 50:2 53:3 54:17 59:20 61:14 62:5 64:3,6,20 65:8 66:12,24 77:6 80:23 87:11 94:19 108:9,23 109:12

class 72:8

clean 103:5

client 20:3 74:12,15 87:8,16,20 88:2, 5,9,14,19 89:3,5,24 90:5

coding 56:17 72:7

collaborated 14:2

collaborating 14:5

collated 21:25

colleague 4:23

collection 76:16 77:11 120:20 121:2,4

collections 76:19 120:8,23

column 51:24 54:25 56:6 74:5 120:12,16

combination 78:12 80:7,21

combines 23:21

comments 100:17

commercial 29:15 30:5,7 33:8

commercials 103:11

common 24:9

commonly 72:25

communication 106:25

communications 105:14

company 23:17

compared 60:12 103:5

completeness 38:18

comprised 28:6

comprising 87:4

computer 44:21 45:3

computer-network 74:7

computers 30:2 43:5 44:24 45:12,18

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 132
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

concept 79:12

concert 41:13 42:17 43:3,4 46:10

conclusion 40:8 82:9

conducted 5:4 17:24

conference 23:22 28:4,18

conferences 27:22 28:15

conferencing 28:16,23 29:2

configured 85:4

confirm 9:19 10:7 21:23 25:14,19 95:5,9 96:20

confirms 28:25

connected 45:12

connection 44:23 85:22 86:5,15 87:20 88:8,18 89:2,5,11,18 90:4,17

connections 38:13 84:18 85:7,18, 24 86:10,20 87:8,13,16 88:14 89:24

considerations 81:23 82:4,13,17 83:2 84:8 102:3,12 104:3,21 105:2 107:12,23

considered 16:5,11 90:10 92:20 95:15 96:11 99:25 109:12

consistent 10:19,22 11:3 111:20

construction 67:2,18

consumers 29:11

contemplate 87:12

contend 40:4

content 43:22 51:4 52:6 57:23 58:3 60:23 62:21 64:8,24 66:14,18 67:5,12 111:9 112:16 114:2

contentions 79:13

contents 11:16,17,19,25

context 36:24 37:5,23 38:9 40:20 59:2,6,8,13 64:13 66:8

continue 94:8

continued 99:10 123:13

continues 103:15

continuous 70:22 71:4,7 74:14

conventional 28:9

conversely 71:6

converting 122:6

conveyed 58:25 59:3

copies 47:9,22 48:5,17 49:8 52:25 54:13,18 55:13 57:15 59:20,23 60:6, 17 61:12,23 62:6,20 64:4,20 66:12

copy 26:3,20 48:13 49:23 50:23 55:16

copyright 43:23

corporations 45:2

correct 5:7,18,20,25 6:8,12 7:8,14, 17 8:20 11:2,10 12:7 13:5,23 16:7,18, 21 17:6,9,12 18:24 19:17 23:5,12 24:13 27:14 29:13 30:6,21 31:6,11 32:4,9,16,21,23 33:24 34:14 36:9 38:24 39:9,13,19,23,24 40:16,18 41:6,8,19 42:6 43:6 44:14 46:5 47:16 48:18 49:3,9,14 50:6 52:18 53:24 54:5 55:3 56:11 58:9,13,18 64:16 66:4 70:6 71:7 72:11,14,19 76:7,20 77:12 78:12 79:5,9,17,25 81:20 82:7 83:17,20,22,25 84:14,18 85:19 86:16 87:13 88:19 90:5 91:6,8 93:9,23 94:4 96:3,23 97:4,15 100:2,8,12,19,20 103:22 104:9 106:8 107:18

correction 9:5

correctly 12:15 47:8,11 108:16

correspond 48:12 49:13 53:5

corresponds 48:12

cost 36:5 44:23 117:7,8

cost-effective 35:12

costly 35:18 36:15 118:15

costs 35:13 36:6

Cotton 41:15

counsel 26:3 42:24 45:24 75:22 92:22 95:3 99:14 106:20 108:6,17,21 109:20 110:3 115:18,21,25 117:24 118:10,20 120:2,3,6 121:13

cover 92:16

covers 85:15 86:5,14 87:19

crafting 46:10

create 50:4 69:18 70:2 75:23 111:10 121:21

created 30:21

creating 51:10,19 52:11 53:23

crisp 103:5

critical 84:14,16

cross 90:25

customers 23:20 32:7,14,24

D

Dallas 41:15

data 20:2 28:12 74:11 111:24

date 22:21 24:12,16,21 26:10,19 27:5,13,24 35:6 36:24 37:20 38:7 42:8 118:22 119:2

dates 30:24 31:13

Dave 18:4 92:14

David 92:5

day 124:17

days 123:12

decisions 15:16 19:4,11

declaration 6:4,7,10,22 7:16,20,21 8:14,19,24 9:13,20 10:2,9,13 11:6,14, 15,24 12:9,19,24 13:4,12 15:5,7 16:7, 13,21 17:3,6,11,18 19:17 20:19 21:18 22:11 23:12,14 24:6 25:7,17 33:22 37:14 39:5 40:15 42:13 46:11 47:4 54:5 57:8,19,21 63:24,25 67:24 69:11 71:18 73:21 74:20,22 75:2,11,17 76:2,25 77:7,15 78:3,9 80:18 81:15 83:3,6,14 84:11 88:24 96:13 98:4 99:18 100:2,19,23 101:21,22 102:14 103:3,22 104:6 107:14 108:10,13,18, 25 109:4,13 115:15 119:20 120:6,19 122:11,25

declarations 5:6,20 6:5,16 7:12 9:4 10:19 11:13 12:20 14:18 15:21,23 16:18 94:4 96:23

declining 35:13 36:6 117:8

dedicated 28:7

deemed 54:17 59:20 61:14

Defense 45:8

defer 91:19 93:15

define 58:12

defined 61:2

defines 58:16 73:9

definition 58:15

definitions 58:12 59:17,24 60:3,14, 25 62:8,24 64:9,14,18,25 65:12 66:9, 10,20 67:14

deleted 20:3

deliver 21:19 111:23

delivery 111:11 114:2,4

demonstrations 29:20,23 30:3

denied 7:4 19:9

denying 19:12

Department 45:7

depending 59:8,13

deposed 5:24

deposition 5:4 7:11 15:25 17:8,23, 24 18:16,17,18,23 22:4 33:14 43:11 83:5 90:22 91:4,6 92:4,14 95:22 96:21,22 97:12 104:24

describe 67:11

describes 57:23 60:23 67:8,11

describing 58:2 64:23 94:11 116:25

description 109:23

designed 72:16

determination 100:6 101:16

determinations 100:17

develops 23:17

device 87:3

dictionaries 62:10

dictionary 58:11,15 59:16 60:14,24 64:9,14,18,25 66:19 67:14

difficult 28:10 106:15

digital 87:2

directed 75:22 78:24

directly 63:6,23 74:18

disagree 13:14 14:15,19 15:3 29:5 36:19 37:12 47:25 48:3,18 86:4

disagreeing 48:7

disagreement 49:2

disavow 8:22

disclaim 8:22

disclose 56:17 57:4

disclosed 80:17 90:18

discloses 65:16

disclosing 65:11 67:21

disclosure 21:23 68:6

disclosures 20:25 21:13

discuss 46:21 101:24 103:25 104:13 105:20

discussed 19:7 41:3 72:18 77:5 80:23 121:15

discusses 60:21

discussing 8:13 10:23 14:6 19:23 34:3 79:11 88:25 94:23 101:4 103:15

discussion 78:6 81:3 105:22

discussions 46:10

Dish 4:20 8:5,10 108:7

dispute 5:17 22:24 23:3 34:21 38:2 44:2 49:18 65:15,24 74:19 87:18 97:13 110:18,22 113:14

disputing 38:4 65:20

disseminated 28:8

distributed 28:5,12 29:8

divulging 105:25

docket 34:11

doctor 37:15 75:6 105:18 109:17 114:12 119:17,19

document 23:8 33:15,18 34:25 35:2 39:18 41:5 42:3 43:9,16 45:25 68:23 69:4 83:11 92:20 93:14 95:6,15,23 96:12 109:22 110:4 113:9 115:19 121:12,15 122:17

documents 50:11,18 97:4,7 115:13

domain 71:12

double-check 34:8

Drew 17:11

duly 4:3 99:7

duration 20:23 21:10

E

E-D-E-L-L 8:11

earlier 21:17 37:3 119:13

earliest 24:11 27:24

early 27:25

Echelon 38:22 115:16 116:14

Edell 8:10

edge 114:2

effective 36:5 117:7

effectiveness 103:10

effects 69:19

element 85:12,13 88:22 89:16 90:18, 19

elements 20:21 21:9 23:24 77:6 89:6

Eliot 8:2

embodiment 76:5

Emmy 93:4,8,22 94:2,11,14,24 97:3, 10 105:8,17 107:17

enables 111:7

encode 68:16 72:9,23 78:17 79:24 80:6

encoded 50:3 51:9,18 52:9 53:15,21 78:22

encodes 80:25

encoding 55:6 57:4 68:15 122:5

end 37:7 45:3 68:24 85:7,19,24 86:6, 15,21 115:3

English 58:22 59:9 61:17 63:14 65:17

ensure 112:17

ensuring 114:3

entitled 24:7 33:15 95:23 113:5,12

Ericson 18:4 90:21,24 92:5,14 93:22 94:10,23 96:6 104:24

Ericsson's 18:16

essential 59:3 62:12 63:3 65:3

essentials 58:17 65:14 66:21

establish 87:7,15 88:13 89:23

established 88:18 90:4 96:10 106:23 107:16

event 51:5,9 53:21

evidence 81:23 82:3,17 100:12 101:5

exact 12:21 30:23 31:13 45:22 49:3 102:21 107:9

examination 4:6 90:25 99:10 108:5

examined 4:5 99:8

exceeding 113:9

exclude 88:7,16 90:2

excuse 11:18 29:9 38:21 44:4 82:22 96:18

executed 87:6

exercise 38:16

exhibit 9:11,12,24,25 10:13,14 11:24 12:8 13:11 16:23 17:14 18:9 19:2,20 22:4,5,9 24:5 25:2,5,11,15,20 27:11

30:9 33:14,15 38:19,25 39:6 41:18, 22,23 42:21 43:11,12 45:25 47:4 50:12,14,18 52:22,23 55:22 56:2 57:20 67:24 69:5,9,12 71:15,21 73:14,18,22,25 75:2 81:15 83:5,6,19, 24 84:21 88:24 91:10,21 92:3,4,10,23 95:18,22,23 96:5,18,21,22 97:13 98:3 99:18 100:2,4,23 101:15 102:13 103:3 108:14 109:5,18 110:8,11,12 111:19 112:3 113:3,4 115:14 119:21 121:7 122:13,14,20

exhibits 15:18,19 16:17,24 17:5,16 18:13 22:18

exist 31:22 32:3,8,15,25

expensive 26:15 28:15,20

experience 14:14 103:9

expert 13:22 15:11

explains 35:11 36:4 54:11 117:5

explicitly 29:7

expressed 13:4

expressing 101:4

expressly 87:11

extended 59:16

extensive 112:16

extent 10:22 11:11 54:16 59:19 60:18 61:5,13,23 62:4 64:5,19 65:7 66:11,12,23 92:22

extremely 24:19 26:15 27:4 28:20, 24

eye 70:2,22 71:2,6,11

F

face 20:12,15

Facebook 31:17,18

facilities 38:17

fact 13:21 27:20 30:20 41:4 43:4 57:2 96:9 97:5 106:16,17,21

factual 49:5

fades 69:20

fair 10:17 13:14,16 15:14 39:4 48:6 98:14

falls 89:13

familiar 7:5 17:19 39:25 70:20 73:3

fans 41:15 42:17,19

faster 124:3

feature 84:14,17

February 41:24 42:10

feed 28:3

feeds 35:17 36:14 118:14

feel 37:16 75:4 91:23 105:24

figure 75:22,25 76:4,10,19 77:12 79:3,19 120:3,7,18,24

filed 34:20

find 42:21 48:15 70:17 88:3

finding 48:4

findings 100:18 101:19

Fine 4:16

Finish 97:24

firm 4:18,22

fit 66:7

fitness 38:17

Five-minute 123:4

Flash 103:6

flip 83:9

flipping 78:20

focus 9:8

focusing 77:23

follow 93:19

footnote 25:24 26:7 27:11,16,20

form 6:13,18 10:20 21:21 24:25 26:12 29:19 30:22 31:3,12 32:10 33:3,11 35:4,19 36:22 38:3,23 39:14 40:25 41:7 43:7 48:19 49:4,15,22 52:17,19 54:6 55:8,15 56:19 57:6 59:12 61:20 63:19 66:5 69:2 72:20 73:11 76:21 77:13 80:9 82:19 85:20 86:7,17 87:22 88:10,20 90:6 94:5 97:17 100:13 101:23 105:10 107:6,19

format 68:7 70:6 122:9

found 34:10 46:5 47:8,11 62:5 64:5 100:11

foundation 92:18 95:13 96:10 97:17 106:23

frame 26:9 27:4,13,23 68:8,19 70:21, 24 71:9 72:23 73:9 119:10,12,16

frames 71:2,5 72:17

frankly 95:16 96:12

Freesites 4:25

front 10:7 92:16

full 33:9 103:4 110:25 111:21 112:7 113:18

functionality 121:14

G

G2 69:5 121:8

Garcia 34:4,14,15,17,19 35:9,10,22 36:3,12,19,25 37:12 38:7 116:16 117:5,21 118:22

Garcia's 116:25 117:18 119:2

general 15:11 44:12 100:21

generally 29:12 46:13 70:23 71:3 91:3 97:6 101:24 102:4,7 103:23,25 104:12 107:10 120:11

GIF 69:25

give 23:23 37:17 95:12

good 4:7,8 81:6 93:18 97:22 112:5 123:8

grab 98:7,13,15

graphic 65:17,18

graphics 112:15

gray 71:8

great 91:25 112:2

green 79:4,8

grounds 39:22 77:17 116:18

group 30:2

growing 27:22

guide 69:10 121:9

Guy 8:3

H

H-O-U-H 4:12

hand 9:23 22:3 25:10 33:13 41:21 43:10 47:2 49:25 50:10 55:25 69:8 73:17 83:4 91:9,21 110:7

handing 9:10 95:21

handle 72:16

Happy 93:14

hardware 28:24

heading 11:22 12:12 70:9 101:9 116:9,12,13

hear 105:16 106:7

heard 73:6 105:12,15 106:5,14

heart 5:14

Henry 4:2,11 83:6 99:6 124:12

high 16:15 74:13 78:13 112:17

high-end 44:21

high-quality 114:3

higher 79:8

Highlands 111:2

highlighted 22:18

highlighting 118:2,5,8

highlights 22:19 34:6

highly 111:10

hits 91:17

Hold 30:10

home 28:21 119:14

hoped 103:8

Hopkins 8:3

Hough 4:1 5:1 6:1 7:1 8:1 9:1 10:1 11:1 12:1 13:1 14:1 15:1 16:1 17:1 18:1 19:1 20:1 21:1 22:1 23:1 24:1 25:1 26:1 27:1 28:1 29:1 30:1 31:1 32:1 33:1 34:1 35:1 36:1 37:1 38:1 39:1 40:1 41:1 42:1 43:1 44:1 45:1 46:1 47:1 48:1 49:1 50:1 51:1 52:1 53:1 54:1 55:1 56:1 57:1 58:1 59:1 60:1 61:1 62:1 63:1 64:1 65:1 66:1 67:1 68:1 69:1 70:1 71:1 72:1 73:1 74:1 75:1 76:1 77:1 78:1 79:1 80:1 81:1 82:1 83:1 84:1 85:1 86:1 87:1 88:1 89:1 90:1 91:1 92:1 93:1 94:1 95:1 96:1 97:1 98:1 99:1 100:1 101:1 102:1 103:1 104:1 105:1 106:1 107:1 108:1 109:1 110:1 111:1 112:1 113:1 114:1 115:1,14 116:1 117:1 118:1 119:1 120:1 121:1 122:1 123:1

Houh 4:2,7,11,25 5:3 8:12 9:13 10:2 14:13 22:12 25:6,18 29:11 34:24 36:18 37:11 38:18 46:15,21 63:12 70:20 81:14 83:7 90:20 91:14 92:7,24 95:4,9,14 96:11 99:6,12 108:6,21 109:17 110:11,15 112:3 113:2,10 124:12

Houh's 22:10

house 38:14

human 70:22

hypothetical 61:16 63:13,21 64:11 90:12

I

Ian 4:23

Iceland 45:6

identical 52:15 58:17,24 59:11,25 60:8,12 61:2,19 62:11,25 63:3,15 64:10,16 65:2,3,13 66:21 67:16

identification 9:15 10:5 22:7 25:9 33:17 42:2 43:14 50:16 55:24 69:7 73:16 83:8 92:6 95:25 110:14 113:7

identified 101:6

identify 23:11 39:21 58:16 76:18

illustration 80:5

image 68:25 70:5 117:21

images 69:25 121:20,22

implied 66:25 67:18

imply 64:22 66:16

implying 65:10

inappropriate 96:14

include 10:25 12:8 16:17,20 59:24 63:2 64:9,15 65:13 66:20 118:5

included 56:15,24

includes 52:15 60:25 64:24 67:15 84:13 118:2

including 24:8 26:18 77:25

inconsistent 58:7

incorporate 40:2

incorporated 40:5

incorporates 40:13

incorrect 24:18

increasing 35:13 36:6 117:8

incredibly 103:5

indented 51:8 52:9 87:2

indicia 100:12,18 101:20

individual 115:3

information 59:4 70:11 105:25

informs 40:19

infrastructures 74:8

initial 6:4,7 8:14,23 9:12,19 11:15 98:4 100:6,17 101:15

Instagram 31:21

instance 85:11,12,13

instantly 55:20

institution 7:3 19:3,9,12

instructions 87:5

instructor-led 111:7

integrates 114:17,22

integrating 111:8

integration 112:13

inter 83:15

interactive 23:18 33:16 38:21 111:10

Internet 35:15,17 36:8,14 38:13,15 41:14 45:13 85:6,18,22,23 86:5,14,20 114:4 117:10 118:15

Internet-delivered 23:22

interpretation 58:7

interpreted 67:20

interrupt 4:14 75:5

introduce 8:10 92:23

introduced 95:19

investigation 100:6

involved 7:6 105:13

involvement 19:7

involving 9:9 14:9 19:8

IP 112:14 114:17,22 115:11

iphones 32:3

IPR 6:11,17 7:3 15:12,14 16:2 18:24 38:22 115:16 116:15

IPR2020-01541 33:22

IPR2024-00043 5:10

IPR2024-00044 5:10

IPR2024-00045 5:11

IPR2024-00046 5:11

IPR2024-00047 6:22

IPR2024-00146 5:12 9:14,21 10:3, 10

IPR2024-00736 83:25

IPRS 19:8

irrelevant 95:17

issue 10:15

issues 10:24 57:16 77:4,9 107:11

ITC 100:5,10,17 101:6

ITC's 101:19

items 60:11

J

Jamie 8:3

Japanese 56:8 65:19

Jeffay 13:5,15,17 14:8,11,14,16 15:3 17:3 24:18,23 26:8 27:3 47:7,16 57:22 60:5,15 61:25 63:8 64:2,21 65:9 66:25 67:17 77:9 79:13 80:14 101:3 102:14,17

Jeffay's 13:10 16:20 17:5,8 27:9 48:8 57:14 61:10 62:18 77:20 100:23 101:22 103:2,20

Joe 8:10

joined 4:22 8:2

JPEG 69:24 70:5

judge 100:11

jurat 123:14

K

Kevin 13:5

key 114:3

kind 71:3

knew 100:10

L

lab 29:21,22,25

labeled 74:5 79:18,19

lacks 97:17

laid 92:19 95:14 107:13

language 27:18 48:21 50:9 51:17 52:16 53:10,21 54:4 59:5 60:20 67:20 85:10,21 86:3 88:16 90:2

languages 66:3

large 68:17

large-scale 114:2

largely 10:25

late 68:5

law 4:18,22 82:21 100:11

lawyer 82:22

lay 104:5

lead 103:8

leading 109:15 110:19 111:16 112:19 113:16,21 114:8,19 115:5,10 116:24 117:12 118:19 119:5 120:21 122:22

learn 45:17

leeway 95:12

legal 40:7,8 81:19 82:9

length 33:9

lets 86:10

level 16:15 78:13

levels 63:11 78:18,23 79:25 80:7

limitations 80:14

limited 28:24 29:3

lines 56:20 120:16

list 16:4,10

listed 16:23 17:15 18:25 20:12 92:16

listen 61:18

literally 14:2

live 28:2 29:17,25 35:17 36:13 38:15 41:14 51:5,9 53:21 118:14

LLP 4:19,22 8:4

lodge 22:9 34:23 92:17 96:9

lodged 93:4

logged 45:4

long 101:11

looked 55:21

lot 17:21 18:18 67:7 119:8

low 68:8,17

lower 79:16

lunch 91:16 98:7,13,15

luncheon 98:17

luncheons 24:2

lunches 24:2

Lynn 8:3

M

M-BONE 42:15 43:3 44:14,24

M.show 20:3,6 21:16 23:7,10,13,20 112:8 114:13,17,22

M.show.com 20:11 23:16 111:7 112:13 113:5,12,25

M.show.com. 110:17

machine 87:4

made 29:22 30:2 35:12 36:5 47:15 117:6

maintain 74:14

Major 17:12

Major's 17:18,23

make 4:14 62:14 91:23

making 57:22 63:17 117:19

mark 4:4 92:3 110:10 113:2

marked 9:11,15,24 10:4 22:4,6 25:8, 11,22 33:14,16 41:22,25 43:11,14 50:12,16,22 55:23 56:2 69:6,9 73:15, 18 83:5,8,19 91:10 92:5 95:22,25 109:4 110:13 113:6

markets 23:17

materials 15:6 16:11,16 99:21,24

matter 52:25

matters 6:16,17,20

MBONE 41:12

meanings 60:7 62:3

means 14:3 112:24 114:13

media 74:11 111:9 114:4,24

meeting-without 23:25

meetings 28:2

members 56:9

memorized 5:22 12:21 31:25 40:17 50:7 54:9

memory 6:24 18:20 55:19 87:3 91:8 105:6

mentioned 65:5 77:24 119:13

mere 106:16

method 111:11

Microsoft 21:19 23:23

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 137
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

mid-question 91:18

middle 35:24 43:21 44:7,18 68:3 70:18,19 71:14,20 73:20 93:20

million 45:18

minimal 103:6

minimum 70:21 73:9

minutes 97:24 105:23 108:3

missing 80:15

mission 111:23

modem 71:22,25

modern 32:19

modify 78:16 79:23

module 87:8,16,20 88:2,5,9,15,19 89:6,25 90:5 91:18

morning 4:7,8

motion 70:22 71:4,7 77:25

motivated 78:16 79:23

Move 84:13 86:11 97:14 102:22 103:4 104:11 105:7,16

Move's 94:16 97:14 102:18 103:16, 21 104:8 105:9 107:18

movies 33:9

moving 98:5

MPEG 71:25 72:6 73:8,12

MPEG-1 72:10,16 73:9

MPEG-2 72:13,25 73:4

MSHOW 22:6,16 23:5

MSHOW.COM 110:12

multiple 47:9 48:5,16 77:21 78:18 79:25 80:6 84:17 85:18 86:9

N

Netflix 31:2,5,7

network 28:6,12,22 87:7,13,15,19 88:8,14,17 89:24 90:3 114:3

news 22:25 44:3,4 103:20

Newsroom 43:15

nexus 94:18 97:6,8 101:25 102:2,4, 8,12 103:24 104:3,4,13 107:13,16,21, 24

Nokia 14:9,11

Nominees 95:24

non-obviousness 81:24 84:9 101:6

nonresponsive 29:10 37:10

nontransitory 87:4

normal 18:21

Notary 4:4 124:20

note 9:17

noted:1:55 124:10

noting 68:4

notion 66:20

November 110:13

number 5:16 6:24 9:9 42:19 83:16 92:10 109:18 110:8,11

numbers 5:13,18 39:2 45:14,22 92:16

numeral 11:19

numerous 38:16

O

object 35:3 37:9 93:14 95:2 110:20 113:8

objection 6:13,18 10:20 21:21 22:9 24:25 26:12 29:10,19 30:22 31:3,12 32:10,17 33:3,11 34:24 35:19 36:22 38:3,23 39:14 40:7,25 41:7 43:7 48:19 49:4,15,22 52:17,19 54:6 55:8, 15 56:19 57:6 59:12 61:20 63:19 66:5 69:2 72:20 73:11 76:21 77:13 80:9 82:8,19 85:20 86:7,17 87:22 88:10,20 90:6 92:18,24 93:7,12,15 94:5 95:17 96:9,16 97:16 100:13 101:23 105:10 107:6,19 109:15 110:19 111:16 112:19 113:16,21 114:8,19 115:5,10 116:24 117:12 118:19 119:5 120:21 122:22

objective 100:12,18 101:5,20

obvious 12:5 80:22

obviousness 82:6 84:5

offered 103:4

offhand 30:24 31:9,20 35:7 37:20 45:15 55:18 94:7

office 28:22

Ogden 79:23

Ogdon 7:7 11:21 12:3,11,14 19:8,15, 23 20:7,10,12,21 21:9 27:20 28:24 29:7 39:9,11,12,17,21 40:4,6,11,13, 14,20,21 41:4 47:8 48:4,16 49:2 54:11,25 55:5,9,11,16,22 56:5,14,17, 22 57:3,23 60:18,20,21 61:6,15 62:7, 19,21 64:7,22 65:10,15,24 66:17 67:2,8,11,21 76:6,7,9 78:12,16,21 80:13,19,22 88:25 89:10,17 90:16 108:8 111:15 115:8 119:24 120:12,16 121:3,25

Ogdon's 20:25 21:12 27:24 68:6

omitted 49:16

online 111:7

opening 57:8,19 77:7

opines 27:3

opinion 47:18 78:21 79:7 84:18 104:25 107:16,22 108:8

opinions 8:23 9:2 10:18 11:2,9 13:3, 11,22 14:18,20,25 15:3,6 16:6,12 82:14 106:25 111:14 115:7 121:24

opposed 13:19 48:13

opposing 109:20 110:2 115:18,21, 25 117:24 118:20 120:2,6 121:13

order 123:9 124:4

organization 56:11

original 76:24 77:15 80:18 88:23 108:18

originally 88:22

overlapping 10:25

overview 116:13

owner 4:19 8:5 26:16,21 27:2,17 33:24 47:6,15 48:8 60:6,16 63:9 64:22 65:9 80:15 82:12 116:16

owner's 12:17 27:7 66:25 67:18 79:13

P

p.m. 98:17 99:3 124:10

paper 38:5

papers 15:13

Paquette 4:23

paragraph 12:23 13:9 15:4 16:4,10 19:19,20 20:18 21:18 23:15 24:17 25:2,6,16,25 26:23 34:2 35:8,23 36:3 39:6,7 41:10 42:12 47:5,21 49:7,18 51:8,21 52:8,24 53:11,24,25 54:2,10 56:25 57:11,20 67:23 68:13 71:13,19

73:20 74:6 75:16,19 76:13,14 78:8 79:22 81:15,17,18,22 84:3,12,24 87:2 89:4 98:3 99:17,20 100:22,24,25 101:10 102:14,15,23 103:2 104:18 109:5,10 110:24,25 111:22 112:7,12 113:19,24 114:17 115:22,23 116:2,6, 9 117:3,4,15,16,20

paragraphs 114:16 116:20,23

parallel 84:17 86:9,11

paraphrased 49:11

paraphrasing 47:14 108:15

part 13:13 18:8 36:2,9 48:13,21 53:5 60:13 77:2,17 82:6 91:4 101:8 111:22 117:4 122:25

partes 83:15

partly 60:13

parts 29:6 47:12 49:14 94:19

party 13:22

Pass 107:25

patent 4:19 8:5 9:9 12:17 13:18 20:13,15 26:16,19,21,25 27:7,17 33:23 39:13 40:6,23 41:5 47:6,15,24 48:8,9,11 49:9,12,24 50:22,23 51:14 52:4 53:3,4 55:22 60:6,16 63:8 64:22 65:9 66:25 67:17 71:19 79:13 80:15 82:12 83:7,16 84:20,21 86:25 88:12 89:22 108:10,24 109:14 116:16 119:24

patented 114:24

patentee 117:17

patents 6:12 24:12 26:11 27:14 50:14 52:15

pause 7:23 91:11

Peloton 33:16,24 38:20,22 115:16

people 29:17 44:20

perceive 70:22 71:7

perceives 71:3

period 24:20 30:14 31:4,23 45:13

person 23:17

petition 7:17 8:15 83:15

Petitioner 5:2

Philip 4:21 8:6

phone 111:25

photographic 55:19

phrasing 49:18

Pick 11:14

piggyback 124:4

placing 103:11

play 74:14

player 84:13 102:19 103:21 104:8,11 105:8,17

plurality 50:4,5 51:9,11,18,19 52:10, 11 53:22,23 84:25 85:16

point 58:11 60:5,18 61:5,9 62:3,4,13, 15 64:2 65:6,21 66:6 67:3 76:23 77:8, 20 78:25 81:5 111:19

pointed 37:3

pointing 21:4 47:20 67:9 77:22 94:21

points 12:13 13:15 59:19 67:10 77:20 78:14

popularity 27:23

portion 34:14 35:9,25 36:19 37:12 53:17 86:22 122:17,20

portions 39:16 57:3 100:9

POSITA 28:17 40:20 41:11 58:8 68:5,14 78:15 79:22

possibilities 69:16

possibly 32:20

potentially 60:3

powered 105:8

Powerpoint 20:22,24 21:9,11,19 23:23 110:4

practical 35:12 36:5 117:7,19

pre-caching 114:24

pre-grant 40:23

preparing 99:25

prerecorded 65:25

prescribes 65:25

present 14:11 70:11

presentation 54:13,14 55:3,14 56:8 63:10 65:16,18 69:25 77:22 78:17 79:24 80:4

presentations 21:20 66:2 112:17

presented 82:5

press 110:12,16 113:4,11

pretty 29:6

previously 5:24 9:11,14,24 10:4 25:8,10 41:21,25 45:23 50:11,15 55:23,25 69:6,8 73:15,17 82:15 99:7

Prime 31:11,14

principles 81:20

prior 89:19 104:16 109:23

priority 24:21 26:10,19 27:5,13,24 35:6 36:24 37:20 38:7 118:21 119:2

privileged 105:14,19,21,25 106:18, 20 107:3

probative 81:23

proceeding 13:23 15:12 16:2 18:10 91:2 116:15

proceedings 5:7 50:13 92:15

process 15:11 18:22

processing 87:3

processor 87:6

product 20:7 21:17 23:11

production 69:10 121:9

profiles 73:3

program 45:4

progress 91:24

proposing 80:6

provide 13:3 14:25 15:2 16:12 18:24 38:15 54:19 99:21

provided 13:21 14:17 45:24 82:13 104:23

providers 23:19

providing 15:11

provisional 19:16,23 20:8,10 21:23 39:9,11,17,22 40:5,14,22 41:4

public 4:4 29:23 34:10 124:20

publication 40:24 44:4

publish 41:5

published 34:20 40:22 46:8

pull 76:9 84:20 108:13 109:17 115:14 119:23 121:7

purpose 123:14

purposes 116:22

put 115:13 119:17 121:5

Q

quality 28:10 63:10 78:18,22 79:25 80:7 112:17

question 16:8 25:19 32:11 35:3 37:16 61:9 63:6 75:8 88:11 93:3,13 105:19 106:4 107:8

questioned 11:4

questioning 91:14 93:20 97:25 120:10

questions 96:15 108:7 110:3 115:22 116:2 123:3

quick 77:17 83:9

quotations 54:21

quote 36:12 53:20 54:3 71:22,23 101:11 102:25

quoted 57:2 122:24

quotes 47:12

quoting 34:13 47:15

R

raised 77:9,21 82:12 104:21 105:18 116:14,17

Ranch 111:2

rare 24:19 26:15 27:4,12 28:20

rate 24:8 51:4 52:6 68:9 72:23 73:10 74:13 79:9,16

rates 50:4 51:10,19 52:10 53:16,22 55:7 56:18 57:5,18 70:21,24 80:25

read 5:18 13:7 21:6 35:21 36:21 47:13 66:24 69:4 95:4 100:15 109:5 111:6 112:11 113:24 114:21 117:4 118:12 119:4 120:13

readable 87:5

reading 21:4 35:22,24 67:2 70:16

real 69:10 122:4

real-world 23:24

reality 37:7,22 38:10,17

Realmedia 119:11

Realpix 69:17,25 70:10 121:14,18, 19,24

Realplayer 68:22

Realplayer's 68:15

realsystem 69:5 121:8

Realtext 69:17

Realvideo 68:15 70:9

reask 31:4 75:7

reason 22:24 34:21 44:2 64:18 110:17,21 113:14

reasons 5:17 66:10 104:5

rebuttal 59:18 60:5 61:4,9 62:4 63:8, 16 65:21 76:23 77:8,19 78:14 81:4

rebutted 12:16

rebutting 79:12

recall 6:15,21 7:4 8:12,16 12:15,18 14:4 17:17,22 18:3,10,11 19:6 31:18, 20 33:21 34:16 37:19 41:12 45:15,21, 23 46:2,12,13 55:18,20 73:19,23 74:23 75:10 90:22 91:7 108:6,16,21 109:24 110:2 115:18,25 118:3,7 121:13

receive 44:24 85:5 86:18

received 93:8 105:8,17

receives 85:17

receiving 74:15

recent 14:8 35:16 36:12 37:24 118:13

recently 8:18 35:2

recess 7:25 46:19 81:11 98:17 108:4 123:6

recipients 45:5

recite 50:2

recited 76:6

recites 84:25 86:13,25 88:13 89:23

recognize 33:19,20 42:3 69:9 83:10, 13

recognized 63:22

recognizes 113:25

recollection 109:11 118:9 120:17

record 4:10,17 7:24 15:13 36:21 46:18,20 81:10,13 92:25 98:16 99:5 105:23 111:6 112:13 113:24 114:22 117:5 118:12 123:5

recorded 58:21,22 59:9,10

recording 59:9,10

recordings 58:21,24 61:17 63:14

reduced 77:25

refer 60:8 62:10 72:6 76:24 80:10 102:9,13

reference 7:7 15:5 19:8,15 23:13 34:4,16 37:21 38:8 40:2,5,14 42:18 76:9 90:9 93:4 116:14

referenced 20:7,9 21:17 23:7 42:12

references 68:25 75:2 116:17

referencing 27:7,8 101:4

referred 117:25 118:11

referring 6:20 7:2 26:22 32:18 56:12, 20 87:24 104:20

refers 27:11 85:11 88:2 100:5

reflected 120:7

reflects 120:19

refresh 109:10 120:17

regard 5:4 6:3 93:12

regular 111:25 123:9

relate 102:6

related 5:7 6:12,16,17,20 57:16 98:10

relates 5:9

relationship 113:19

release 110:13,16 113:4,11

reliability 35:14 36:7 117:9

reliable 35:18 36:15 118:16

relied 106:24

rely 39:13 106:21 121:23 122:3

relying 122:4,21

remember 5:15 17:20 18:5,6 20:14, 17 30:16,18 31:7,13 40:9 69:3 72:21 74:21 75:12 76:25 82:20 94:6,7 100:14 105:3,12,15 106:5,13 107:8 118:23 120:9

remote 28:5

render 12:4

rendered 11:9 14:21

rendering 16:5,12 80:22

repeatedly 54:11 68:24

reply 12:17

report 102:9 119:4

REPORTER 110:9 123:11 124:7

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 140
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

reports 92:21

represent 4:24 34:9,19 92:13 110:15 113:10

represented 118:21

represents 79:8,15

reproduce 36:20 37:13

request 85:6 86:19

requesting 86:10

requests 85:17

require 49:19 54:17 59:20 60:6,11, 16 61:12,14 62:6 63:9 64:3,6,20 66:12

required 28:15 60:19 61:5 65:8 67:22 70:21 77:5

requirement 47:22 48:24 62:19

requirements 48:9 82:11,25

requires 9:5 49:13 53:4 61:23 74:11 86:18 89:18

requiring 48:13

respect 10:21 12:14 30:11 52:20 59:18,22 60:4 62:17 73:6 77:3 80:16, 24 85:22 88:25 89:16 90:15 115:8 121:25

respectful 91:13

respects 58:18 62:12 63:4 65:3,14 66:22

responding 101:21

response 16:25 26:17,21 27:2,7,18 57:13

resumed 99:6

retrieve 86:21 89:6

returning 7:10 44:17

revert 72:2

review 15:13,16,18,19,20,25 17:20 18:6,12,18,20,22 19:3,11 77:18 83:16

reviewed 16:17 17:6,9,12 18:15 35:2 50:19 99:25 100:8

reviewing 17:17,22 18:3

rich 111:9 114:4,23

Richman 4:4

rightfully 63:22

Rolling 41:13 42:16 43:2,12,19 44:13

Roman 11:19

room 28:3

rough 124:6

roughly 45:11

row 79:4,8,15 100:4

rubber 23:25

running 93:12,15

rush 25:18 124:5

S

sat 91:5

scenario 85:16 88:16 90:2

scope 22:10 35:4 93:7 95:16 97:16 110:20 111:17 112:20 113:9 114:9

screen 103:4

searches 34:11

secondary 81:22 82:4,12,16 83:2 84:8 102:3,11 104:2,21,25 107:12,23

seconds 71:10

secret 86:12

section 11:17,18 12:2,8 24:7 55:5,11 56:5 57:10,13 63:7 78:24,25 79:10 80:12 81:19 120:22 121:2

segment 53:17 65:16,18 81:2 120:25 121:4 123:2

segments 53:14,15 57:24 62:22 66:2,19 67:13 79:9,12,16 120:24

semantic 48:25

sending 35:16 36:13 118:14

sense 65:2,8 67:15

sensing 67:19

sentence 20:20 21:8 54:20 68:2,4,24 69:17 74:10,19,24 111:5 112:12,22 113:23 114:11,16 117:15,25 118:10

sentences 56:13

separate 18:20 39:18 59:10

September 22:22

series 5:5,14 7:2 54:20 122:7

server 74:12 85:4 87:9,17,21,24 88:15,19 89:25 90:5

servers 84:25 85:17 89:7

service 23:19,21 30:7 31:8 33:8 112:8

services 23:18 30:6 32:7,14,19,24 111:24 112:16

set 6:5 63:16

setting 89:19

settings 28:22

Sheng 4:13,21 6:13,18 8:7 10:20 21:21 22:8 24:25 26:2,5,12 29:19 30:10,22 31:3,12 32:10,17 33:3,11 34:23 35:19 36:22 37:15 38:3,23 39:14 40:7,25 41:7 43:7 48:19 49:4, 15,22 51:21,25 52:17,19 54:6 55:8,15 56:4,19 57:6 59:12 61:20 63:19 66:5 69:2 70:15 72:20 73:11 76:21 77:13 80:9 82:8,19 85:20 86:7,17 87:22 88:10,20 90:6 91:11,25 92:10,17 93:7,11,18 94:5 95:2 96:8 97:16,23 98:5,11,14 100:13 101:23 105:10,18 106:3,19 107:6,19 108:2,5 110:10 113:2 123:3,8 124:2,9

show 20:2 21:19 62:25 68:7,18 70:9, 10 72:2 121:21 122:8

showing 97:18 108:18

shows 33:9 68:25 69:19 70:2 120:25

shut 95:11

side 8:6 14:3,7 15:23 116:16

signature 9:18

similar 51:17 52:16,21

similarities 52:21

simplicity 111:24

simply 38:25 120:23

simultaneously 76:10

single 50:3 85:19

site 28:4

sites 28:5 45:3

sitting 37:25 74:23 75:9 89:20

skim 9:16 10:6 25:13

slide 21:19 68:6,7,17,25 69:19 70:2, 10 72:2 121:21 122:8

slides 20:22,24 21:10,12 23:23 110:5

slightly 61:8

Sling 93:8 94:3

SMIL 12:4

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 141
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

smooth 74:14

snapshot 122:7

software 20:3

sort 43:21 44:18 51:7 68:3

sounds 5:14 6:9 7:5,9,15 17:13,19 50:8

Spanish 58:23 59:11 61:18 63:15

speaker 70:10

speaking 104:12

speaks 95:6

special 69:19

specialized 28:16

specific 77:8 80:25

specifically 50:2 62:18 102:6 104:7, 10

speeds 71:22,25

spelled 4:12

stack 50:10

stamp 96:6

stand 8:25 42:19

standard 72:7,10,13 73:4,13

standards 72:8

standing 93:17

starred 74:6

start 47:3 50:21 69:14 108:20

started 31:8,14 35:23

starting 29:21 112:7 119:14

state 4:9 13:2 24:17 40:13 54:10 57:21 68:13 76:4 84:13 89:21 92:24

stated 71:6 84:4

statement 14:15 27:2,9 42:20 61:10 111:20 119:3

statements 13:3 56:16,25

states 19:25 45:7

station 74:15 85:19 86:6,15

stations 85:8,25 86:21

stay 74:4

step 15:10

Stones 41:13 42:16 43:3,12,19 44:13

stop 91:16

storing 47:9 48:5,16 86:22

Strategic 113:6,13

stream 29:25 30:14,25 31:5,10,16 32:8,15,25 33:8 41:13 69:18 86:10 103:7

streaming 24:7,8,19 26:9,14 27:3,12 28:19 29:16,18 30:5 31:8 35:11,15 36:4,8 38:11 51:4,17 52:2,7 69:16,18 74:11 97:15 102:18 103:16 111:8 112:15,25 114:5,14,23 115:12 117:6, 10,18,19 119:11

streamlet 49:13 53:4 85:5,17 86:19, 22

streams 49:20 50:5 51:11,20 52:11 53:23 68:18 103:12

strictly 66:24

strike 44:9 47:25 73:2,8 96:19 108:19 116:7

string 57:3

subheading 116:19

subject 7:11 90:25

submitted 5:6,19 6:4,10 7:12,16,19 8:13,19 9:5,13,20 10:2,9,12 18:9 33:22,23 34:5,7 37:2 38:20,21 83:14 109:13 115:15

submitting 6:15,21

Subscribed 124:15

substance 46:22 99:14

substantially 11:9

Sun 43:13,22,23

Superhighway 43:13,19

supplemental 5:5,6 7:21 8:19 9:4, 25 10:8,13,18 11:6 12:9 15:7 16:6,13, 18 19:16 20:19 22:11 23:12,14 25:7, 16 39:5 40:15 42:13 46:11 54:4 63:25 78:9 83:3 101:21 103:21 104:6 107:14 108:10,13,24 119:20 120:5,19 122:11,24

support 7:17 56:16,25 59:22 67:9 83:15 111:14 115:7

supporting 55:10

surprise 45:17

surprised 45:20

suspect 124:2

sustained 74:13

sworn 4:3 99:7 124:15

synchronization 112:14

synchronizes 115:2

synchronous 111:10

system 30:12 51:3 69:10

systems 28:16 29:2,16 72:2

T

table 11:16,17,18,25 99:21

takes 44:21

taking 15:10 54:24 122:7

talk 67:4 99:12,13

talked 90:20 91:14

talking 53:13 55:6,12 56:7 112:25 114:13 115:11

talks 29:7 62:9 111:22 120:22 122:5

targeting 23:19

taught 89:17 90:18,19

TCP 84:17 86:9

teach 47:9 48:4,16 90:16

teaches 78:21 80:13,20

teaching 60:20 61:15 62:7,20,21 64:7 66:17 67:3 86:9 89:2,11,13 121:3

technologies 27:25

technology 28:13 35:16 36:13 38:11 44:8,19 94:16 97:15 105:9 107:18 114:25 118:14 119:9

telecommunications 28:7

telephone 28:9 44:22

telephony 28:11 112:15 114:23

telepresentations 27:21 28:14,18

television 29:13,18 33:9

term 39:25 60:10

terms 77:3

testified 4:5 82:15 99:8

testimony 11:5 15:12 18:3,8,24 37:18 46:22 59:7 99:15 103:20

text 36:11 69:18 117:21

thick 121:8

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 142
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

thing 61:13 67:10 72:25

things 11:12 59:24 61:2,23 62:10 64:10,15 65:2 67:8 77:24 95:6,10 119:10

thinks 105:21

thought 57:12

thousands 41:14 42:17

thread 93:20

threshold 52:25

tie 103:24

tied 97:8 102:4,12 104:3 107:24

Tiktok 31:22

time 9:6 22:6,16 23:5 24:20 26:9 27:4,13,23 30:14 31:23 45:13 46:16 81:6 93:14 97:22 119:10,12,16,24 124:10

timeline 30:19,23

timelines 31:24 33:6

Times 41:23 42:5

timing 107:9

tip 70:8,19 122:18

title 22:20,22 43:22

today 7:11 32:7,15,19,25 35:3 37:18, 25 74:24 75:9 89:20 109:25

today's 28:2 74:7 109:23

Togetherware 114:25

told 105:7

tool 68:16 121:14,18,20,24 122:5

top 22:15 23:5 42:8 43:18 122:16

topic 98:6

traditional 23:21

training 111:8

transcript 17:9,23 18:16 92:4 93:21 94:9 95:5,10 97:12 104:24

transcripts 16:2 18:19,23

transmission 79:8,16

transmitted 74:12

trial 14:10,12

true 20:6 21:16 24:23 31:21 32:22 40:12 101:18

trusted 14:16,24

truthful 37:17

turn 11:15,23,25 12:23 16:4 19:19 20:18 24:5 25:23 47:3 50:25 51:13,14 52:23 67:23 69:14,23 75:16 78:8 79:20 81:14 84:12,23 86:24 93:2 94:22 98:2,3 99:17 100:22 103:9 108:12 109:3 110:23 112:3,6 115:23 116:5 120:4,12 121:11 122:12,13

turnaround 123:10

turning 30:9,13 43:2 75:7 122:8

TV 29:12,25

type 72:2 103:16

typical 28:21

typically 15:13,20,25 18:22 28:3,6,8

U

U.S. 9:9 83:16

unclaimed 84:14,16

underlying 49:21

understand 82:11 84:4 85:10 87:25 88:11 91:3,5 104:2 106:16

understanding 81:19 82:16 102:2 117:14 118:25 121:17,19

understood 28:17 58:8 68:6

United 45:7

universities 44:25

unpatentability 39:23 77:4

user 85:7,19,24 86:6,15,21

user's 115:3

users 103:9

V

vaguely 17:19

Venable 4:22,24

verify 38:19

version 34:10 80:4 103:4

versions 54:12 55:2 56:7 57:25 62:23 67:13 77:21

video 24:7,19 26:8,14 27:3,12,22 28:3,15,16,18,19,23 29:7,16,18 30:5, 14,25 31:5,10,17 32:8,15,25 35:11, 14,17 36:4,7,13 38:11 47:10,22 48:6, 14,17 49:8,14,20,21 50:3,5 51:5,9,17, 18 52:2,7,9 53:2,6,21 54:12,14,18 55:6 56:18 57:4,15 59:21 60:7,17 61:12,24 62:7,20 63:9 64:4,21 66:13 68:9,17 72:3,7,9,17,23 77:22,25 78:17,22 79:24 80:4 81:2 86:23 111:8,23 112:14,25 114:5,14,18,22 115:2,12 117:6,9,18,19 118:14 119:12 122:6

videos 20:23 21:11 62:6

view 117:18

viewing 103:8

VIII 11:18,19,20

visual 70:11

voice 111:23

W

Wait 76:25 102:20

wanted 91:15

watch 29:12,17

web 30:4 84:25 85:4,16 89:6

Westlaw 22:12,25 43:16

widespread 38:12

wildly 96:13

Williams 8:3

Wilson 4:6,16,18 7:23 8:2,9 26:4 29:9 37:9 46:18,20 51:23 70:18 81:9, 12 91:22 92:2,12 93:17 98:9,12,16 99:4,11 107:25 109:15 110:19 111:16 112:19 113:8,16,21 114:8,19 115:5, 10 116:24 117:12 118:19 119:5 120:21 122:22 123:4,7 124:5

Winners 95:24

witnesses 18:23

won 94:12

word 12:18 13:7 40:17 48:12 49:16 54:9 55:20 60:22 67:19 69:4 74:21 75:13 78:5 94:6 108:16 110:4 121:2 122:17

word's 74:7

wording 122:10

words 12:21 13:6 26:18 27:15,16 36:3 38:5 40:10 47:23 49:3,6 50:7 52:20,21 53:25 56:21 78:7 101:8 102:21

work 14:7 17:21

DISH TECHNOLOGIES L.L.C., Exhibit 2091, p. 143
Aylo Freesites Ltd. v. Dish Technologies L.L.C., IPR2024-00045

worked 13:17,19,25 97:14

working 14:5

workstation 44:22

worth 68:4

written 70:12 75:13

wrong 47:19

Y

year 38:14

years 35:16 36:12 37:24 118:13

yellow 79:4,15

York 41:23 42:5

Youtube 30:15,16,20

Z

Zealand 45:6

Zoom 28:2

zooms 69:20